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SUSE Linux Enterprise Desktop

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GNOME USER GUIDE

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About This Guide

This manual introduces you to the GNOME graphical desktop environment as implemented in SUSE® Linux* Enterprise Desktop 10 SP1 and shows you how to configure it to meet your personal needs and preferences. It also introduces you to several programs and services, including office programs such as OpenOffice.org, Web browsers, file managers, scanning tools, and image editing tools. It is intended for users who have some experience using a graphical desktop environment such as Macintosh*, Windows*, or other Linux desktops.

This guide contains the following sections:

- Part I, “GNOME Desktop,” on page 15
- Part II, “Office and Collaboration,” on page 103
- Part III, “Internet,” on page 181
- Part IV, “Multimedia,” on page 201
- Part V, “Appendixes,” on page 245

Audience

This guide is intended for users of the GNOME desktop.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation, or go to www.novell.com/documentation/feedback.html and enter your comments there.

Documentation Updates

For the latest version of this documentation, see the SUSE Linux Enterprise Desktop documentation (http://www.novell.com/documentation/sled10/index.html) Web site.

Additional Documentation

The *GNOME User Guide* and documentation for each component can be accessed using the Help Center. To access the Novell Help Center, click *Help* on the top panel of the desktop and then click *User's Manual*.

For documentation about the KDE Desktop, see the *SUSE Linux Enterprise Desktop KDE User Guide* (http://www.novell.com/documentation/sled10/sled_kdeuser/data/bookinfo_book_sled_kdeuser.html).

For information about installing and administering SLED, see the *SUSE Linux Enterprise Desktop Deployment Guide* (http://www.novell.com/documentation/sled10/sled_deployment/data/bookinfo_book_sled_deployment.html).

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GNOME Desktop

Getting Started with the GNOME Desktop

1

This section describes the conventions, layout, and common tasks of the GNOME desktop as implemented in SUSE® Linux* Enterprise Desktop 10 SP1.

- Section 1.1, “Logging in and Selecting a Desktop,” on page 17
- Section 1.2, “Logging Out,” on page 19
- Section 1.3, “Desktop Basics,” on page 19
- Section 1.4, “Using the Main Menu,” on page 23
- Section 1.5, “Managing Folders and Files with Nautilus,” on page 26
- Section 1.6, “Accessing Network Resources,” on page 34
- Section 1.7, “Accessing Floppy Disks, CDs, or DVDs,” on page 37
- Section 1.8, “Finding Data on Your Computer or in the File System,” on page 38
- Section 1.9, “Moving Text between Applications,” on page 42
- Section 1.10, “Exploring the Internet,” on page 42
- Section 1.11, “E-mail and Scheduling,” on page 42
- Section 1.12, “Opening or Creating Documents with OpenOffice.org,” on page 44
- Section 1.13, “Taking Screen Shots,” on page 44
- Section 1.14, “Viewing PDF Files,” on page 45
- Section 1.15, “Controlling Sound,” on page 46
- Section 1.16, “Managing Software Packages and Updates,” on page 47
- Section 1.17, “Other Useful Programs,” on page 53

1.1 Logging in and Selecting a Desktop

When you start your system, you are prompted to enter your username and password. This is the username and password you created during installation. If you did not install the system, check with your system administrator for the username and password.

The login screen has the following items:

- **Login prompt:** Enter your username and password to log in.
- **Language menu:** Select a language for your session.
- **Session menu:** Select the desktop to run during your session. If other desktops are installed, they appear in the list.
- **Reboot:** Select to restart the computer.
- **Shut Down:** Select to shut down the computer.

1.1.1 What Is a Session?

A *session* is the period of time from when you log in to when you log out. The login screen offers several login options. For example, you can select the language of your session so that text that appears in the interface is presented in that language.

After your username and password are authenticated, the Session Manager starts. The Session Manager lets you save certain settings for each session. It also lets you save the state of your most recent session and return to that session the next time you log in.

The Session Manager can save and restore the following settings:

- Appearance and behavior settings, such as fonts, colors, and mouse settings.
- Applications that you were running. such as a file manager or an OpenOffice.org program.

TIP: You cannot save and restore applications that Session Manager does not manage. For example, if you start the vi editor from the command line in a terminal window, Session Manager cannot restore your editing session.

For information on configuring session preferences, see "Managing Sessions" on page 94.

1.1.2 Switching Desktops

If you installed both the GNOME and the KDE desktops, use the following instructions to switch desktops.

1. Click *Computer* > *Logout* > *Log Out*.

   In KDE, click the main menu button > *Log Out* > *End Current Session*.
2. On the login screen, click *Session*.
3. Select the desktop you want (*GNOME* or *KDE*), then click *OK*.
4. Type your username, then press Enter.
5. Type your password, then press Enter.

1.1.3 Locking Your Screen

To lock the screen, you can do either of the following:

- Click *Computer* > *Lock Screen*.
- If the *Lock* button is present on a panel, click it.

  To add the *Lock* button to a panel, right-click the panel, then click *Add to Panel* > *Lock Screen*.

When you lock your screen, the screen saver starts. To lock your screen correctly, you must have a screen saver enabled. To unlock the screen, move your mouse to display the locked screen dialog. Enter your username and password, then press Enter.

For information on configuring your screen saver, see "Configuring the Screen Saver" on page 81.

1.2 Logging Out

When you are finished using the computer, you can log out and leave the system running, or restart or shut down the computer.

1.2.1 Logging Out or Switching Users

1. Click *Computer* > *Logout*.
2. Select one of the following options:

   Log out: Logs you out of the current session and returns you to the Login screen.

   Switch User: Suspends your session, allowing another user to log in and use the computer.

1.2.2 Restarting or Shutting Down the Computer

1. Click *Computer* > *Shutdown*.
2. Select one of the following options:

   Shutdown: Logs you out of the current session, then turns off the computer.

   Restart: Logs you out of the current session, then restarts the computer.

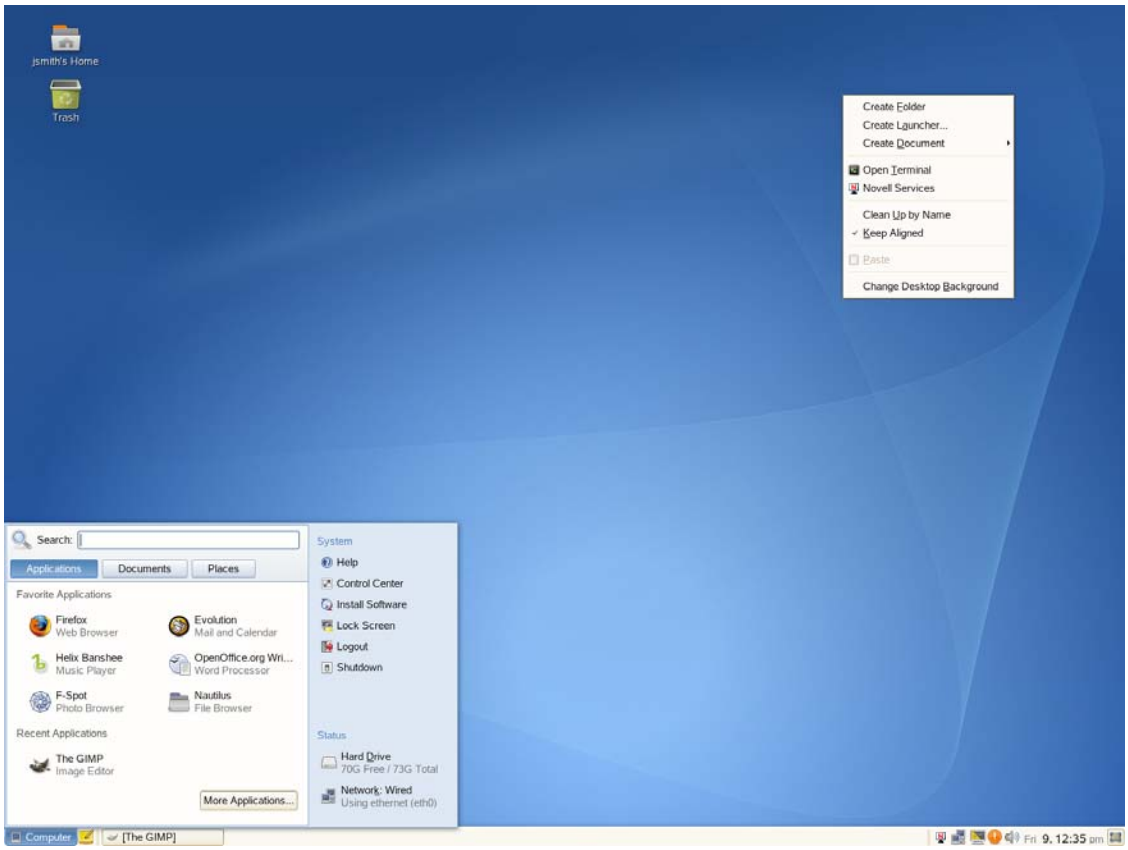
   Sleep: Puts your computer in a temporary state that conserves power. The state of your session is preserved, however, including all applications you have running and all documents you have open.

   Hibernate: Suspends your session, using no power until the computer is restarted. The state of your session is preserved, however, including all applications you have running and all documents you have open.

1.3 Desktop Basics

As with other common desktop products, the main components of the GNOME desktop are icons that link to files, folders, or programs, as well as the panel at the bottom of the screen (similar to the Task Bar in Windows). Double-click an icon to start its associated program. Right-click an icon to access additional menus and options. You can also right-click any empty space on the desktop to access additional menus for configuring or managing the desktop itself.

Figure 1-1 *GNOME Desktop*



By default, the desktop features two key icons: your personal Home folder and a trash can for deleted items. Other icons representing devices on your computer, such as CD drives, might also be present on the desktop. If you double-click your Home folder, the Nautilus file manager starts and displays the contents of your home directory. For more information about using Nautilus, see "Managing Folders and Files with Nautilus" on page 26.

Right-clicking an icon displays a menu that offers file operations such as copying, cutting, or renaming. Selecting *Properties* from the menu displays a configuration dialog. The title of an icon, as well as the icon itself, can be changed with *Select Custom Icon*. The Emblems tab lets you add graphical descriptive symbols to the icon. The Permissions tab lets you set access permissions for the selected files. The Notes tab lets you manage comments. The menu for the trash can also features the *Empty Trash* option, which deletes its contents.

A link is a special type of file that points to another file or folder. When you perform an action on a link, the action is performed on the file or folder that the link points to. When you delete a link, you delete only the link file, not the file that the link points to.

To create a link on the desktop to a folder or a file, access the object in File Manager by right-clicking the object and then clicking *Make Link*. Drag the link from the File Manager window and drop it onto the desktop.

- Section 1.3.1, "Default Desktop Icons," on page 21
- Section 1.3.2, "Desktop Menu," on page 21
- Section 1.3.3, "Bottom Panel," on page 21

- Section 1.3.4, “Adding Applets and Applications to the Panel,” on page 22

1.3.1 Default Desktop Icons

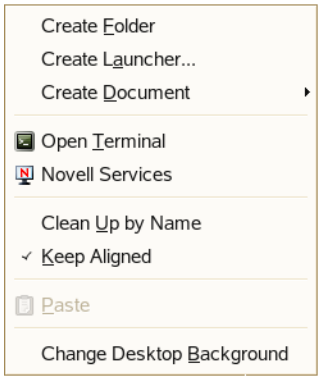
To remove an icon from the desktop, simply drag it onto the trash can. You cannot move the Home icon to the trash.

WARNING: .Be careful with this option—if you move folder or file icons to the trash can, the actual data is deleted. If the icons only represent links to a file or to a directory, only the links are deleted.

1.3.2 Desktop Menu

Right-clicking an empty spot on the desktop displays a menu with various options. Click *Create Folder* to create a new folder. Create a launcher icon for an application with *Create Launcher*. Provide the name of the application and the command for starting it, then select an icon to represent it. You can also change the desktop background and align desktop icons.

Figure 1-2 *GNOME Desktop Menu*



1.3.3 Bottom Panel

The desktop includes a panel across the bottom of the screen. The bottom panel contains the Computer menu (similar to the Start menu in Windows*) and the icons of all applications currently running. You can also add applications and applets to the panel for easy access. If you click the name of a program in the taskbar, the program's window is moved to the foreground. If the program is already in the foreground, a mouse click minimizes it. Clicking a minimized application reopens the respective window.

Figure 1-3 *GNOME Bottom Panel*

The *Show Desktop* icon is on the right side of the bottom panel. This icon minimizes all program windows and displays the desktop. Or, if all windows are already minimized, it reopens them.

If you right-click an empty spot in the panel, a menu opens, offering the options listed in Table 1-1:

Table 1-1 *Panel Menu Options*

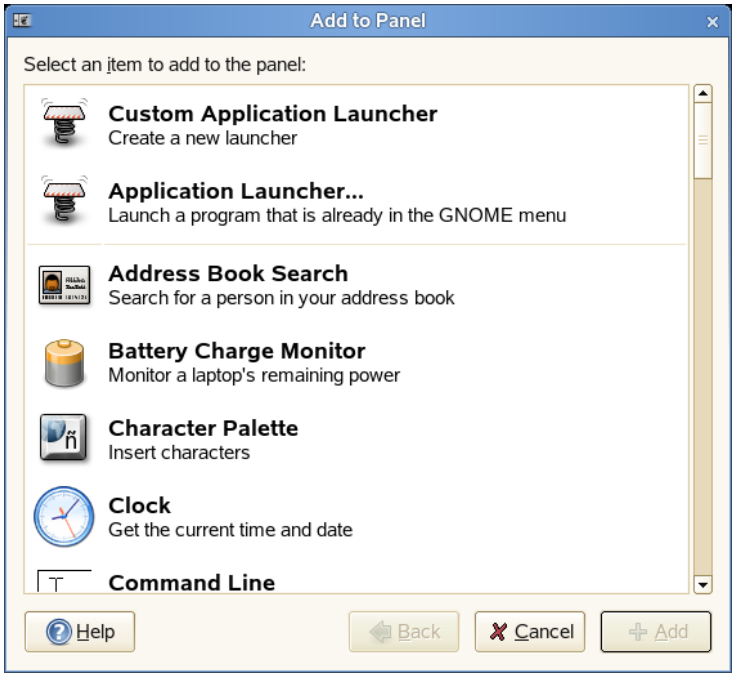
Option	Description
Add to Panel	Opens a menu of applications and applets that can be added to the panel.
Properties	Modifies the properties for this panel.
Delete This Panel	Removes the panel from the desktop. All of the panel settings are lost.
Allow Panel to be Moved/ Lock Panel Position	Lets you drag the panel to another side of the screen, or locks the panel in its current position.
New Panel	Creates a new panel and adds it to the desktop.
Help	Opens the Help Center.
About Panels	Opens information about the panel application.

1.3.4 Adding Applets and Applications to the Panel

You can add applications and applets to the bottom panel for quick access. An applet is a small program, while an application is usually a more robust stand-alone program. Adding an applet puts useful utilities where you can easily access them.

The GNOME desktop comes with many applets. You can see a complete list by right-clicking the bottom panel and selecting *Add to Panel*.

Figure 1-4 *Add to Panel Dialog Box*



Some useful applets include the following:

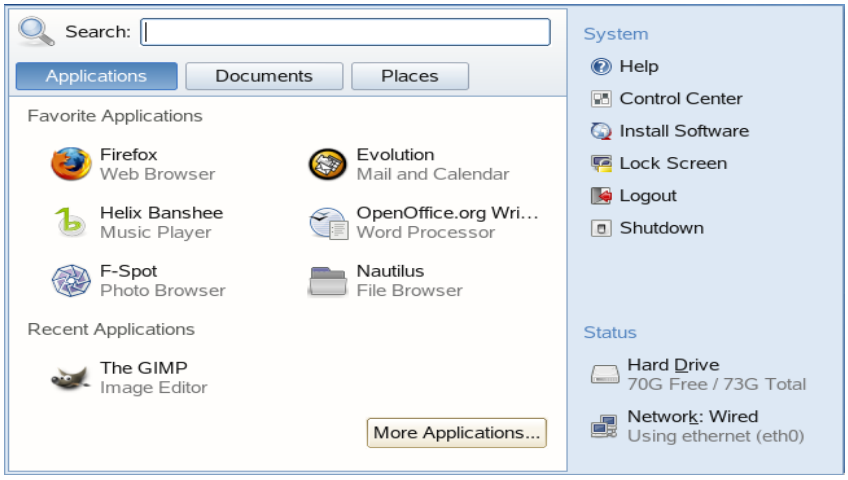
Table 1-2 *Some Useful Applets*

Applet	Description
Dictionary Lookup	Look up a word in an online dictionary.
Force Quit	Terminate an application. This is especially useful if you want to terminate an application that is no longer responding.
Search for Files	Find files, folders, and documents on the computer.
Sticky Notes	Create, display, and manage sticky notes on your desktop.
Traditional Main Menu	Access programs from a menu like the one in previous versions of GNOME. This is especially useful for people who are used to earlier versions of GNOME.
Volume Control	Increase or decrease the sound volume.
Weather Report	Display current weather information for a specified city.
Workspace Switcher	Access additional work areas, called workspaces, through virtual desktops. For example, you can open applications in different workspaces and use them on their own desktops without the clutter from other applications.

1.4 Using the Main Menu

Click *Computer* on the far left of the bottom panel to open the main menu. Commonly used applications appear in the main menu, along with recently used applications. You can also click *Documents* to display your recent documents, or click *Places* to display your favorite places (such as your home directory or the Desktop). Click *More Applications* to access additional applications, listed in categories. Use the options on the right to access Help, install additional software, open the GNOME Control Center, lock your screen, log out of the desktop, or check the status of your hard drive and network connections.

Figure 1-5 *Main Menu*



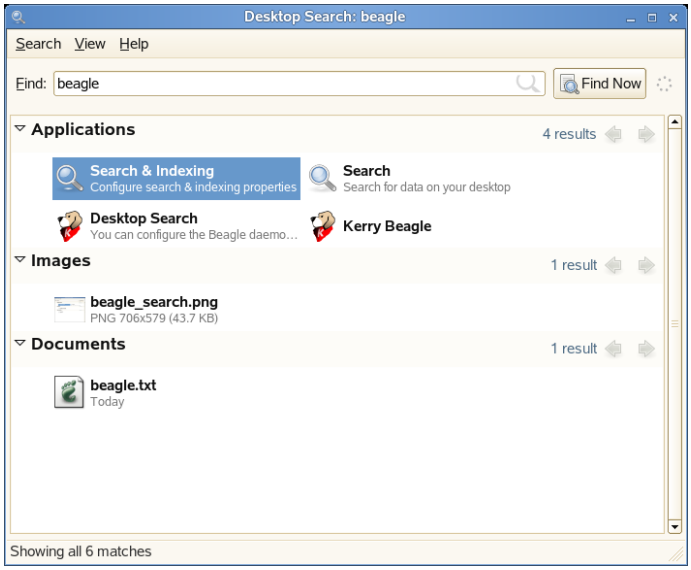
The main menu contains several elements:

- Section 1.4.1, “Search Bar,” on page 24

- Section 1.4.2, “Main Menu Tabs,” on page 24
- Section 1.4.3, “System,” on page 25
- Section 1.4.4, “Status,” on page 26

1.4.1 Search Bar

The search bar helps you find applications and files on your system. Enter your search terms in the *Search* field, then press Enter. The results are displayed in the Desktop Search dialog box.



You can use the results list to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item depend on the type of file it is. Clicking a file in the list displays a preview of the file and information such as the title, path, and date the file was last modified or accessed.

Use the *Search* menu to limit your search to files in a specific location, such as your address book or Web pages, or to display only a specific type of file in your results list. The *Sort* menu lets you sort the items in your results list according to name, relevance, or the date the file was last modified.

For more information about using the GNOME desktop’s search function, see Searching with Beagle (page 173).

1.4.2 Main Menu Tabs

You can determine which icons appear in the main menu by clicking the *Applications*, *Documents*, or *Places* tabs.

- “Favorite Applications” on page 25
- “Recent Applications” on page 25
- “Recent Documents” on page 25
- “Recent Places” on page 25

Favorite Applications

By default, Favorite Applications shows icons for several commonly used applications. Use this view to show the applications you use most often.

To add an item to your Favorite Applications:

1. Click *Computer* > *More Applications*.
2. Right-click the application you want to add.
3. Select *Add to Favorites*.

   The selected application is added to your Favorite Applications.

To remove an item from your Favorite Applications:

1. Click *Computer*.
2. Make sure that your Favorite Applications appear in the main menu.

   If *Favorite Applications* does not appear on the main menu, click *Applications*.
3. Right-click the item you want to remove.
4. Select *Remove from Favorites*.

   The removed application no longer appears in your Favorite Applications view.

Recent Applications

Recent Applications shows the last two applications you have started. Use this view to quickly find applications you have used recently.

Recent Documents

Click the *Documents* tab to display the last several documents you have opened. Use this view to quickly locate the documents you worked on most recently. Click *More Documents* to open the File Browser.

Recent Places

Click the *Places* tab to display the last several places you have opened. Use this view to quickly locate the places you worked on most recently. Click *More Places* to open the File Browser.

1.4.3 System

System provides shortcuts to several system applications.

Table 1-3 *System Shortcuts*

Application	Description
Help	Opens the Help Center, which provides online documentation for your system.
Control Center	Allows you to customize and configure your system. For more information, see Chapter 2, “Customizing Your Settings,” on page 55.

Application	Description
Install Software	Opens the Software Installer, which guides you through the process of installing new software.
Lock Screen	Locks your system so that nobody can access it while you are away. Enter your password to unlock the system.
Log Out	Opens the Log Out dialog, where you can log out or switch users.
Shutdown	Opens the Shutdown dialog, where you can shut down or restart your system, or suspend the computer.

1.4.4 Status

Status displays information about your hard drive and network connection, including the amount of available space on your hard disk and the type of network connection you are using.

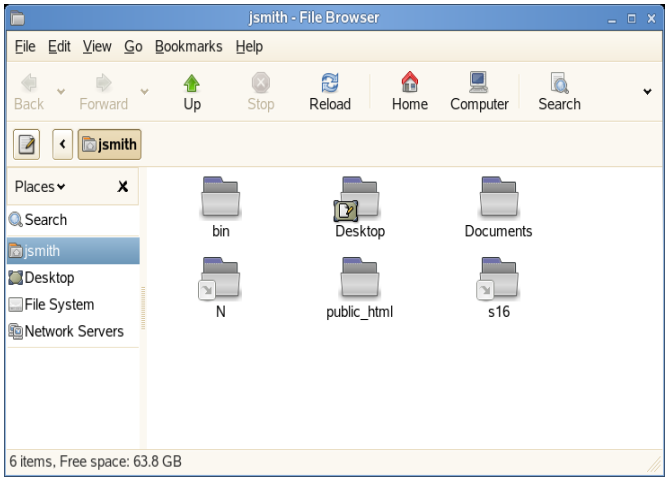
1.5 Managing Folders and Files with Nautilus

Use the Nautilus File Manager to create and view folders and documents, run scripts, and create CDs of your data. In addition, the File Manager provides support for Web and file viewing.

You can open the File Manager in the following ways:

- Click *Computer* > *Nautilus File Browser*.
- Double-click your Home directory icon on the desktop.
- Click *Computer* > *More Applications* > *Browse* > *Home Folder* or *Nautilus File Browser*.

Figure 1-6 *File Manager*



The elements of the Nautilus window include the following:

Menu: Lets you perform most tasks.

Toolbar: Lets you quickly navigate among files and folders, and provides access to files and folders.

Location Bar: Lets you locate files, folders, and URI sites.

Side Pane: Lets you navigate or display information about the selected file or folder. Use the drop-down list to customize what is shown in the pane. The list includes ways to view information about files, perform actions on files, add emblems to files, view a history of recently visited sites, and display your files in the Tree system.

View Pane: Displays folders and files. Use the options on the *View* menu to increase or decrease the size of content in the view pane, and to display items as a list or as icons.

Status Bar: Displays the number of items in a folder and gives the available free space. When a file is selected, the status bar displays the filename and size.

1.5.1 File Manager Navigation Shortcuts

Some simple shortcuts for navigating in the File Manager include the following:

Table 1-4 *File Manager Navigation Shortcuts*

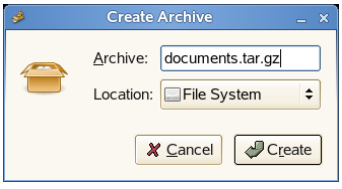
Shortcut	Description
Backspace or Alt+Up-arrow	Opens the parent folder.
Up or Down	Selects an item.
Alt+Down or Enter	Opens an item.
Shift+Alt+Down	Opens an item and closes the current folder.
Shift+Alt+Up	Opens the parent folder and closes the current folder.
Shift+Ctrl+W	Closes all parent folders.
Ctrl+L	Opens a location by specifying a path or URL.
Alt+Home	Opens your home directory.

For more information, click *Help* > *Contents* in the File Manager.

1.5.2 Archiving Folders

If you have files you haven't recently but want to keep on your computer, you can compress the files into a tape archive (TAR) format.

1 In the Nautilus view pane, right-click the folder you want to archive, then click *Create Archive*.



2 Accept the default archive filename or provide a new name. Use `tar.gz` for the most common archive form.

3 Specify a location for the archive file, then click *Create*.

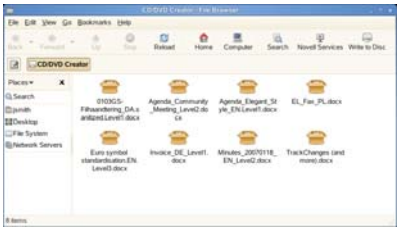
To extract an archived file, right-click the file, then select *Extract Here*.

1.5.3 Creating a CD/DVD

If your system has a CD or DVD read/write drive, you can use the Nautilus file manager to burn CDs and DVDs.

1 Click *Computer* > *More Applications* > *Audio & Video* > *GNOME CD/DVD Creator*, or insert a blank disc and click *Make Data CD/DVD* or *Make Audio CD*/DVD.

2 Copy the files you want to put on the CD or DVD into the Nautilus *CD/DVD Creator* window.



3 Click *Write to Disc*.

4 Modify information in the Write to Disc dialog box or accept the defaults, then click *Write*.

The files are burned to the disc. This could take a few minutes, depending on the amount of data being burned and the speed of your burner.

You can also use the Helix* Banshee™ music player to burn audio and MP3 CDs.

1.5.4 Using Bookmarks

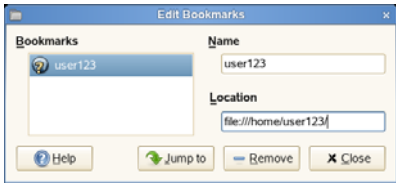
Use the Nautilus Bookmarks feature to mark your favorite folders.

1 Select the folder or item you want to create a bookmark for.

2 Click *Bookmarks* > *Add Bookmark*. The bookmark is added to the list, with the folder name as the bookmark name. When you bookmark a file, it is the folder that is actually bookmarked.

3 To select an item from your Bookmarks list, click *Bookmarks*, then click the desired bookmark in the list.

You can also organize your Bookmarks list by clicking *Bookmarks* > *Edit Bookmarks* and making your selections in the dialog box.



To change the order of your bookmarks, click a bookmark and drag it to the desired location.

1.5.5 File Manager Preferences

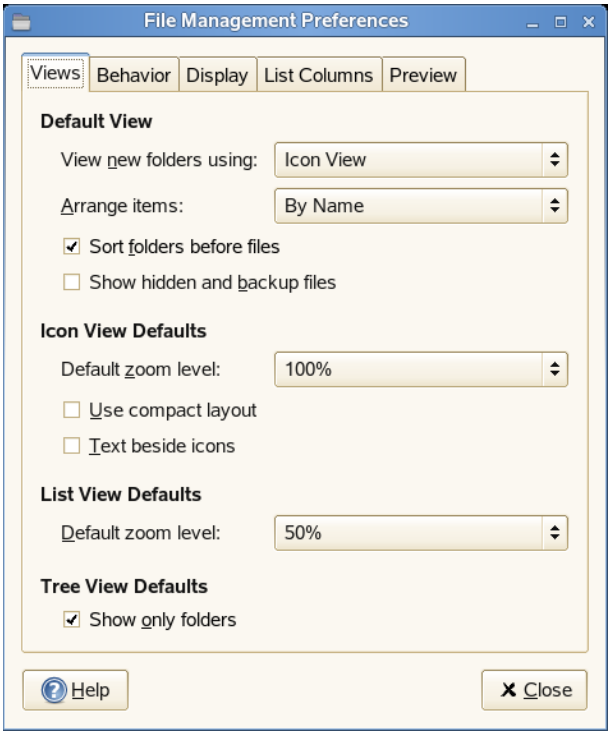
You can change the File Manager preferences by clicking *Edit* > *Preferences*. The configurable preferences are organized on five tabs:

- "Views" on page 29
- "Behavior" on page 30
- "Display" on page 31
- "List Columns" on page 32
- "Preview" on page 33

Views

To configure the appearance of the File Manager, click *Edit* > *Preferences* > *Views*.

Figure 1-7 *File Manager Views Dialog Box*



Select from the following options:

Table 1-5 *File Manager Views Options*

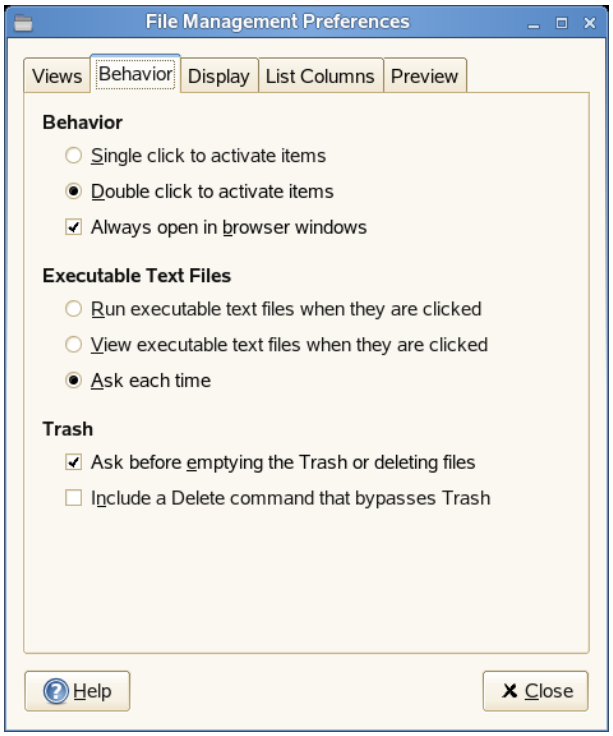
Section	Option	Description
Default View	View new folders using	Determines whether new folders are displayed as icons or as a list.

Section	Option	Description
	Arrange items	Sets the order in which items are listed. Items can be listed by name, size, type, modification date, or emblems.
	Sort folder before files	Places this folder at the top of the list, if this check box is selected (the default).
	Show hidden and backup files	Shows hidden files and backup files in your directories. If this check box is not selected (the default), hidden and backup files do not appear.
Icon View Defaults	Default zoom level	Sets the size of items that appear in the File Manager.
	Use compact layout	Displays items closer together.
	Text beside icons	Displays icon captions next to the icons, rather than beneath them.
List View Defaults	Default zoom level	Determines the size of items that appear in the list view.
Tree View Defaults	Show only folders	When selected, displays folders in the tree in the side pane.

Behavior

To configure the behavior of the File Manager, click *Edit* > *Preferences* > *Behavior*.

Figure 1-8 *File Manager Behavior Dialog Box*



Select from the following options:

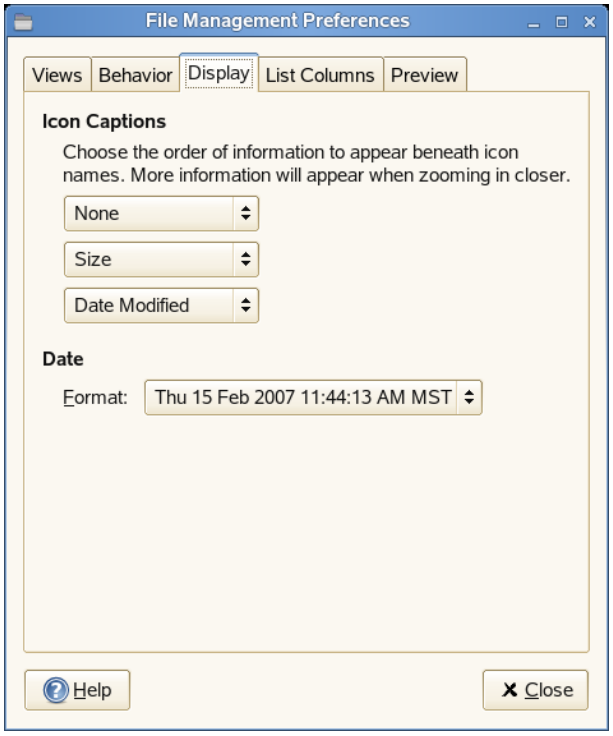
Table 1-6 *File Manager Behavior Options*

Option	Description
Single click to activate items	Performs the default action for an item when you click the item. If this option is selected and you point to an item, the title of the item is underlined.
Double click to activate items	Performs the default action for an item when you double-click the item.
Always open in browser windows	Opens the File Manager in Browser mode whenever you open it.
Run executable text files when they are clicked	Runs an executable file when you click the file. An executable file is a text file than can execute (that is, a shell script).
View executable text files when they are clicked	Displays the contents of an executable file when you click the file.
Ask each time	Displays a dialog when you click an executable file. The dialog asks whether you want to execute the file or display the file.
Ask before emptying the Trash or deleting files	Displays a confirmation message before the Trash is emptied or before files are deleted.
Include a Delete command that bypasses Trash	Adds a *Delete* menu item to the *Edit* menu and the pop-up menu that is displayed when you right-click a file, folder, or desktop object. When you select an item and click *Delete*, the item is immediately deleted from your file system.

Display

To configure the way icon captions and dates appear in the File Manager, click *Edit* > *Preferences* > *Display*.

Figure 1-9 *File Manager Display Dialog Box*



Select from the following options:

Table 1-7 *File Manager Display Options*

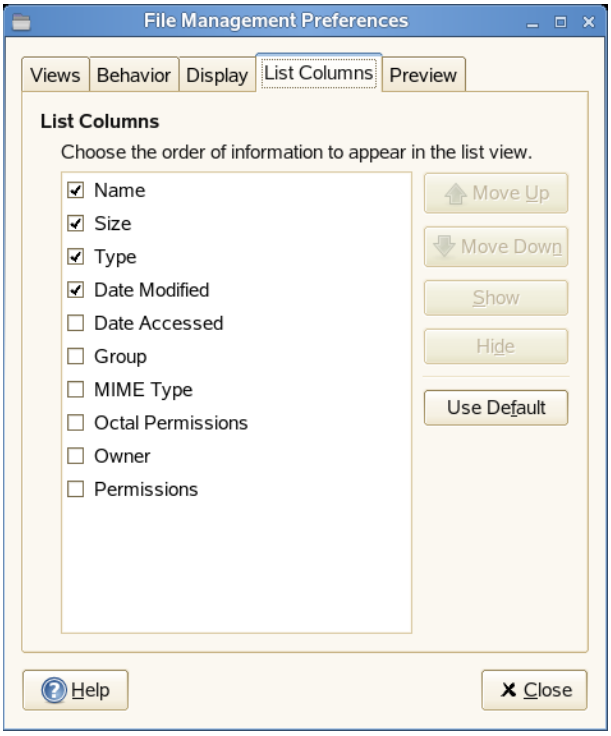
Option	Description
Icon Captions	Sets the order of information to appear beneath icon names. You can set three information types, in the order that they appear.
Date	Configures the date format.

List Columns

To configure the columns that appear in the File Manager, as well as the order in which they appear, click *Edit* > *Preferences* > *List Columns*.

Select the columns that you want to appear. To change the order, click *Move Up* or *Move Down*.

Figure 1-10 *File Manager List Columns Dialog Box*



Preview

To configure how file previews appear in the File Manager and whether folders show the number of items they contain, click *Edit* > *Preferences* > *Preview*:

Figure 1-11 *File Manager Preview Dialog Box*

Select from the following options:

Table 1-8 *File Manager Preview Options*

Option	Description
Show text in icons	Specifies when to preview the content of text files in the icons that represent the files.
Show thumbnails	Specifies when to show thumbnails of image files in the icons that represent the files.
Only for files smaller than	Specifies the maximum file size for files represented by thumbnails.
Preview sound files	Specifies when to preview sound files.
Count number of items	Specifies when to show the number of files contained in folders. In the Icon view, you might need to increase your zoom level to see the number.

1.6 Accessing Network Resources

This section describes how to access network resources:

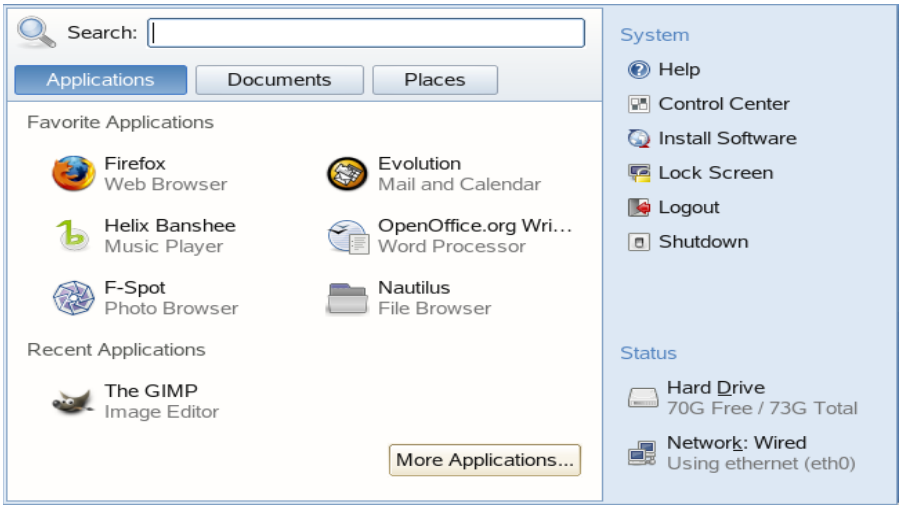
- Section 1.6.1, “Connecting to Your Network,” on page 35
- Section 1.6.2, “Accessing Network Shares,” on page 35

- Section 1.6.3, “Sharing Directories from Your Computer,” on page 37

1.6.1 Connecting to Your Network

You can connect to a network with wired and wireless connections. To view your network connection status, click *Computer*. In the *Status* area of the main menu, The *Network Connections* icon shows your network connection status. For example, in the following figure, the computer is connected to a wired network using an Ethernet connection.

Figure 1-12 *Network Connections Icon in the Main Menu*



Click the icon to get information about your connection, such as the IP address, gateway address, and similar details. Click *Configure Networking* in the Connection Information dialog box if you need to configure your network setup method or edit your network card configuration.

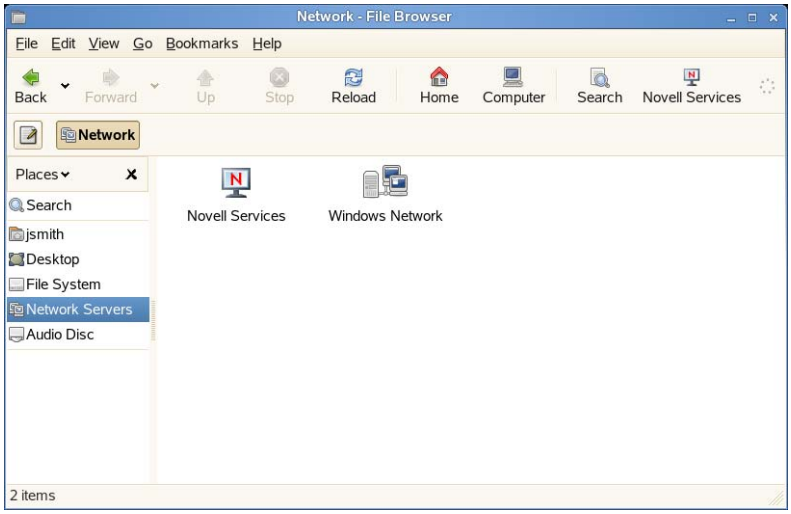
For more information, see Chapter 11, “Managing Network Connections,” on page 183.

1.6.2 Accessing Network Shares

Other network devices, like workstations and servers, can be set up to share some or all of their resources. Typically, files and folders are marked to let remote users access them. These are called *network shares*. If your system is configured to access network shares, you can use Nautilus File Manager to access them.

To access network shares, double-click your Home directory icon on the desktop, then click *Network Servers* in the left pane. The window displays the network shares that you can access. Double-click the network resource that you want to access. You might be required to authenticate to the resource by providing a username and password.

Figure 1-13 *Network File Browser*



To access Novell shares, double-click the *Novell Services* icon. A list of Novell shares available to you is displayed.

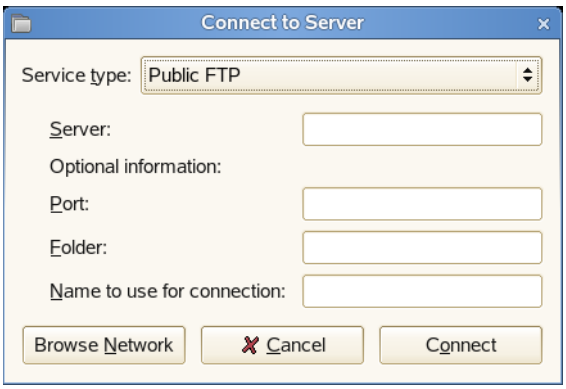
To access NFS shares, double-click the *UNIX Network* icon. A list of UNIX* shares available to you is displayed.

To access Windows shares, double-click the *Windows Network* icon. The Windows shares available to you are displayed.

For more information, see Chapter 8, “Accessing Network Resources,” on page 169.

Adding a Network Place

1 Click *Computer* > *Nautilus File Browser* > *File* > *Connect to Server*.



2 Select a service type, then specify the required information for your type of service.

3 Specify the name you want displayed for this connection, then click *Connect*.

An icon for the network place is added to the desktop.

1.6.3 Sharing Directories from Your Computer

You can make directories on your computer available to other users on your network.

Enabling Sharing

Use YaST to enable sharing on your computer. In order to enable sharing, you must have `root` privileges and be a member of a workgroup or domain.

1. Click *Computer* > *More Applications* > *System* > *YaST*.
2. In YaST, click *Network Services* > *Windows Domain Membership*.
3. In the Windows Domain Membership module, click *Allow Users To Share Their Directories*.
4. Click *Finish*.

Sharing a Directory

If directory sharing is enabled on your computer, use the following steps to configure a directory to be shared.

1. Open the File Manager and browse to the directory you want to share.
2. Right-click the directory you want to share, then click *Sharing Options*.

3. Select the *Share this folder* check box, then type the name you want to use for this share.
4. If you want other users to be able to copy files to your shared directory, select the *Allow other people to write in this folder* check box.
5. (Optional) Type a comment, if desired.
6. Click *Create Share*.

1.7 Accessing Floppy Disks, CDs, or DVDs

To access floppy disks, CDs, or DVDs, insert the medium into the appropriate drive. For many types of removable media, a File Manager window pops up automatically when the media is inserted or attached to the computer. If File Manager does not open, double-click the icon for that drive to view the contents.

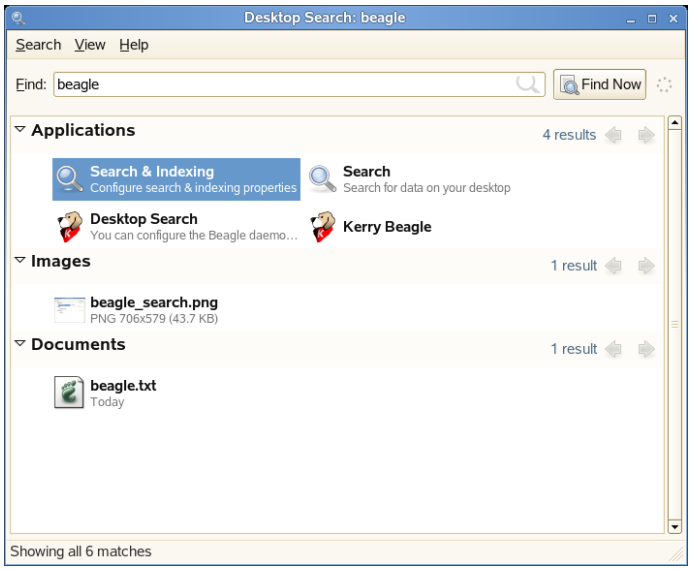
WARNING: Do not simply remove disks from the drive after using them. Floppy disks, CDs, and DVDs must always be unmounted from the system first. Close all File Manager sessions still accessing the medium, then right-click the icon for the medium and select *Eject* from the menu. Then safely remove the floppy disk, CD, or DVD when the tray automatically opens.

Floppy disks can also be formatted by clicking *Computer* > *More Applications* > *System* > *Floppy Formatter*. In the Floppy Formatter dialog, select the density of the floppy disk and the file system settings: Linux native (ext2), the file system for Linux, or DOS (FAT) to use the floppy with Windows systems.

1.8 Finding Data on Your Computer or in the File System

GNOME provides several ways to find data on your computer or in the file system. With Beagle (also called Desktop Search), you can easily search your personal information space (usually your home folder) to find documents, e-mails, Web history, IM/ITC conversations, source code, images, music files, applications, and much more.

To locate files on your computer, click *Computer*, enter your search terms in the *Search* field, then press Enter. The results are displayed in the Desktop Search dialog box.



You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item depend on the type of file it is. Clicking a file in the list displays a preview of the file and information such as the title, path, and date the file was last modified or accessed.

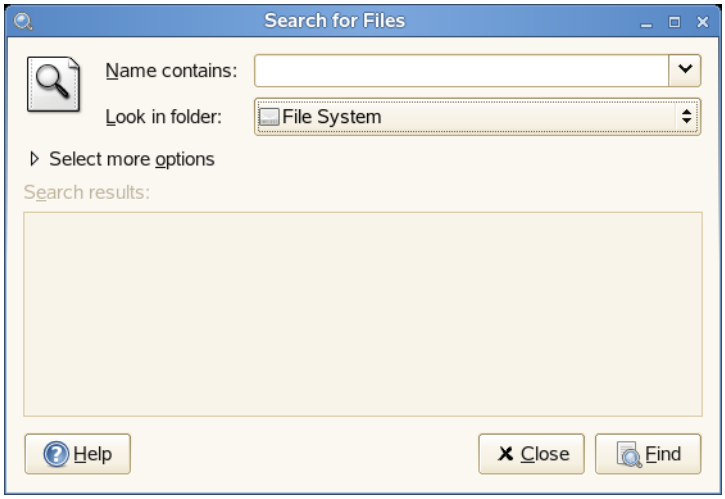
For more information, see Chapter 9, “Searching with Beagle,” on page 173.

With Search for Files, you can locate files on your computer or in the file system using a variety of search criteria, such as file content, date, owner, or file size. Start it by clicking *Computer* > *More Applications* > *System* > *Search for Files*.

1.8.1 Searching for Files

Using *Search for File* on the *System* menu, you can locate files on your computer or on a network share using any number of search criteria.

Figure 1-14 *Search for Files Dialog*



Search for Files uses the find, grep, and locate UNIX commands, and all searches are case insensitive.

You can also open the Search for Files dialog by entering the following command in a terminal window:

```
gnome-search-tool
```

Performing a Basic Search

1. Click *Computer* > *More Applications* > *System* > *Search for Files*.
2. Type the search text in the *Name contains* field.

   The search text can be a filename or partial filename, with or without wildcards, as shown in the following table:

Search Text	Example	Result
Full or partial filename	myfile.txt	Searches for all files that contain “myfile.txt” in the filename.
Partial filename combined with wildcards (* [ ])	*.[ch]	Searches for all files that have a .c or .h extension.

3. In the *Look in folder* field, type the path to the directory where you want Search for Files to begin the search.
4. Click *Find*.

Search for Files searches in the directory that you specify (and any subdirectories of the directory) and displays the results of the search in the Search Results list. If Search for Files does not find any

files that match the search criteria, the application displays the message `No files found` in the Search results list.

Adding Search Options

Use *Show more options* to search by file content, dates, owner, or file size.

1. Click *Computer* > *More Applications* > *System* > *Search for Files*.
2. Type the search text in the *Name contains* field.
3. In the *Look in folder* field, type the path to the directory where you want Search for Files to begin the search.
4. Click *Select more options*, then click *Available options*
5. Select a search option that you want to apply, then click *Add*.

   The following options are available:

Option	Description
Contains the text	Searches for a file by filename. Type a full filename or a partial filename with wildcards in the field provided. Use an asterisk (*) to indicate a sequence of characters. Use a question mark (?) to indicate a single character. The search is case sensitive.
Date modified less than	Searches for files that were modified within the period specified (in days).
Date modified more than	Searches for files that were modified before the period specified (in days).
Size at least	Searches for files that are equal to or larger than the size specified (in kilobytes).
Size at most	Searches for files that are smaller than or equal to the size specified (in kilobytes).
File is empty	Searches for empty files.
Owned by user	Searches for files that are owned by the user specified. Type the name of the user in the text box provided.
Owned by group	Searches for files that are owned by the group specified. Type the name of the group in the text box provided.
Owner is unrecognized	Searches for files that are owned by a user or group that is unknown to the system.
Name does not contain	Searches for filenames that do **not** contain the string that you enter. Enter a full filename or a partial filename with wildcards in the field provided. Use an asterisk (*) to indicate a sequence of characters. Use a question mark (?) to indicate a single character. The search is case sensitive.

Option	Description
Name matches regular expression	Searches for files that contain the specified regular expression in their directory path or filename. Type the regular expression in the text box provided. Regular expressions are special text strings used to describe a search pattern. For more information, see Regular-Expressions.info (http://www.regular-expressions.info).
Show hidden and backup files	Includes hidden and backup files in the search.
Follow symbolic links	Follows symbolic links when searching for files.
Include other filesystems	Searches in directories that are not in the same file system as the start directory.

6 Specify the required search information for the search option.

7 Repeat Step 5 and Step 6 for each search option you want to apply.

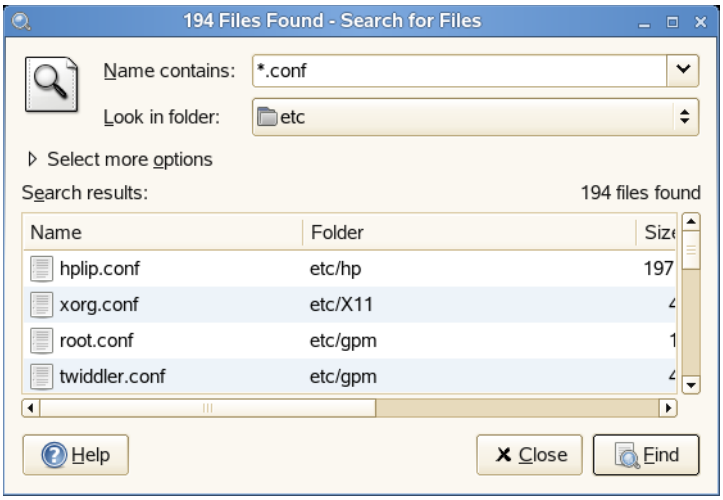
To remove a search option from the current search, click the *Remove* button next to the option.

8 Click *Find*.

Using the Search Results List

You can use the Search Results list to open or delete a file found during a search, or you can save the search results to a file.

Figure 1-15 *Search Results List*



To open a file displayed in the Search Results list, right-click the file, then click *Open* or double-click the file. To open the folder that contains a file displayed in the Search Results list, right-click the file, then click *Open Folder*.

To delete a file displayed in the Search Results list, right-click the file, then click *Move to Trash*.

To save the results of the last search that Search for Files performed, right-click anywhere in the Search results list, then click *Save Results As*. Type a name for the file that the results are saved to, then click *Save*.

Disabling Quick Searches

By default, Search for Files tries to speed up some searches by using the `locate` command. `locate` provides a secure way to index and quickly search for files. Because `locate` relies on a file index, the Search Results list might not be up to date. To disable quick searches, run the following command in a terminal window:

```
# gconftool-2 --type=bool --set /apps/gnome-search-tool/
disable_quick_search 1
```

1.9 Moving Text between Applications

To copy text between applications, select the text, then move the mouse cursor to the position where you want the text copied. Click the center button on the mouse or the scroll wheel to copy the text.

When copying information between programs, you must keep the source program open and paste the text before closing it. When a program closes, any content from that application that is on the clipboard is lost.

1.10 Exploring the Internet

The GNOME Desktop includes Firefox, a Mozilla*-based Web browser. You can start it by clicking *Computer* > *Firefox*.

You can type an address into the location bar at the top or click links in a page to move to different pages, just like in any other Web browser.

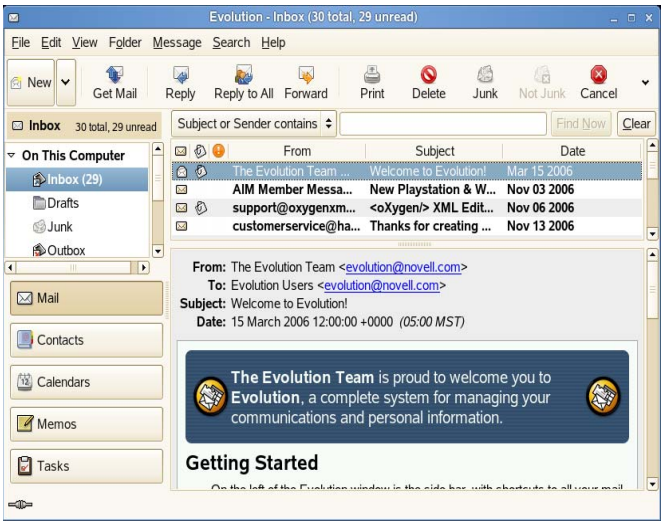
For more information, see Chapter 12, “Browsing with Firefox,” on page 189.

1.11 E-mail and Scheduling

For reading and managing your mail and events, SUSE Linux Enterprise Desktop offers you Novell Evolution™, a groupware program that makes it easy to store, organize, and retrieve your personal information; and the GroupWise® Client, a cross-platform, corporate e-mail system that provides secure messaging, calendaring, scheduling, and instant messaging.

1.11.1 Evolution

Evolution seamlessly combines e-mail, a calendar, an address book, and a task list in one easy-to-use application. With its extensive support for communications and data interchange standards, Evolution can work with existing corporate networks and applications, including Microsoft* Exchange.


Evolution - Inbox (30 total, 29 unread)
File Edit View Folder Message Search Help
New Get Mail Reply Reply to All Forward Print Delete Junk Not Junk Cancel
Inbox 30 total, 29 unread
Subject or Sender contains
Find Now Clear
On This Computer
Inbox (29)
Drafts
Junk
Outbox
From Subject Date
The Evolution Team ... Welcome to Evolution! Mar 15 2006
AIM Member Messa... New Playstation & W... Nov 03 2006
support@oxygenxm... <oXygen/> XML Edit... Nov 06 2006
customerservice@ha... Thanks for creating ... Nov 13 2006
From: The Evolution Team <evolution@novell.com>
To: Evolution Users <evolution@novell.com>
Subject: Welcome to Evolution!
Date: 15 March 2006 12:00:00 +0000 (05:00 MST)
Mail
Contacts
Calendars
Memos
Tasks
The Evolution Team is proud to welcome you to Evolution, a complete system for managing your communications and personal information.
Getting Started

To start Evolution, click *Computer* > *More Applications* > *Office* > *Evolution Mail and Calendar*.

The first time you start Evolution, it prompts you with a few questions as it sets up a mail account and helps you import mail from your old mail client. Then it shows you how many new messages you have and lists upcoming appointments and tasks, as well as the current weather and news from news feeds. The calendar, address book, and mail tools are available in the shortcut bar on the left.

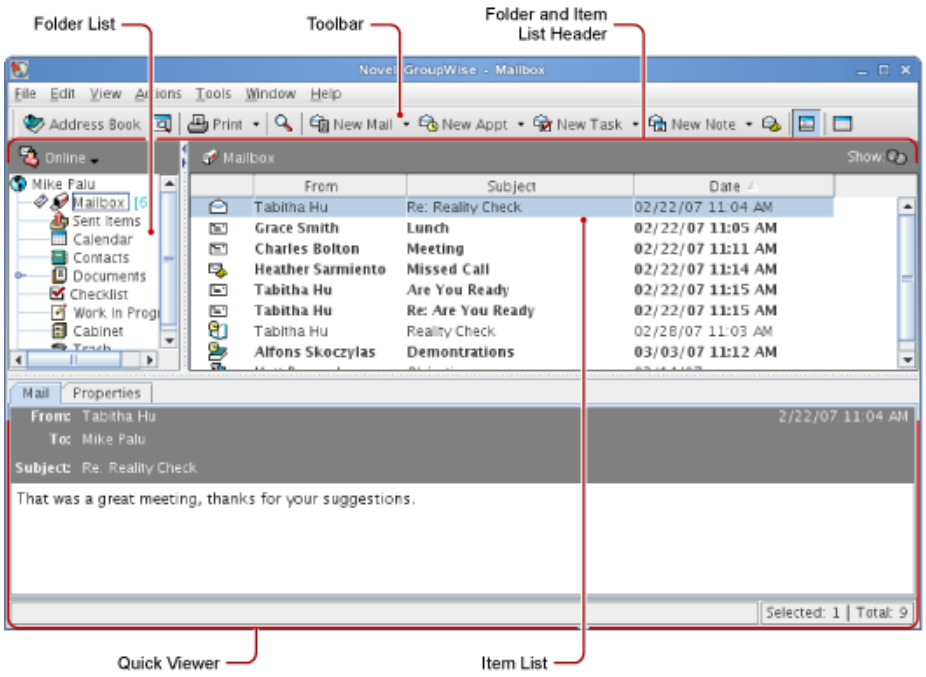
Press Ctrl+N to open a new item for whatever part of Evolution you're working in. In mail, this creates a new message. If you're in the address book, Ctrl+N creates a new contact card, and in the calendar, Ctrl+N creates a new appointment.

For more information, see Chapter 4, “Evolution: E-Mail and Calendaring,” on page 125.

1.11.2 GroupWise

GroupWise is a robust, dependable messaging and collaboration system that connects you to your universal mailbox anytime and anywhere. SUSE Linux Enterprise Desktop includes the GroupWise Cross-Platform Client for Linux.

GroupWise is not installed by default. Use the Software Management feature in YaST to install the `novell-groupwise-gwclient` package. Then click *Computer* > *More Applications* > *Communicate* > *GroupWise* to open the GroupWise Client.



Your main work area in GroupWise is called the Main Window. From the Main Window, you can read your messages, schedule appointments, view your Calendar, manage contacts, change the mode of GroupWise you are running in, open folders, open documents, and much more.

For more information on using GroupWise, click *Help* > *User Guide* in the GroupWise Client.

1.12 Opening or Creating Documents with OpenOffice.org

For creating and editing documents, OpenOffice.org is installed with the GNOME desktop. OpenOffice.org is a complete set of office tools that can both read and save Microsoft Office file formats. OpenOffice.org has a word processor, a spreadsheet, a database, a drawing tool, and a presentation program.

To get started, click *Computer* > *OpenOffice.org Writer* or select an OpenOffice.org module by clicking *Computer* > *More Applications* > *Office,* then select the module you want to open.

A number of sample documents and templates are included with OpenOffice.org. You can access the templates by clicking *File* > *New* > *Templates and Documents*. In addition, you can use wizards, which guide you through the creation of letters and other typical documents.

For a more information, see Chapter 3, “The OpenOffice.org Office Suite,” on page 105 or view the help in any OpenOffice.org program.

1.13 Taking Screen Shots

You can take a snapshot of your screen or an individual application window using any of the following methods:

- From any panel

You can add the Take Screenshot button to any panel. For information on how to do this, see Section 1.3.4, “Adding Applets and Applications to the Panel,” on page 22. After you have added the button, click the *Take Screenshot* button to take a snapshot of the entire desktop.

- Use shortcut keys

  Press the Print Screen button to take a screen shot of the entire desktop. Press Alt+Print Screen to take a screen shot of the currently active window or dialog box.

- From the Application Browser

  Click *Computer* > *More Applications* > *System* > *Take Screenshot*.

- From a terminal

  You can use the `gnome-panel-screenshot` command to take a screen shot. This command takes a screen shot of the entire screen, then displays the Save Screenshot dialog box, which you can use to save the screen shot.

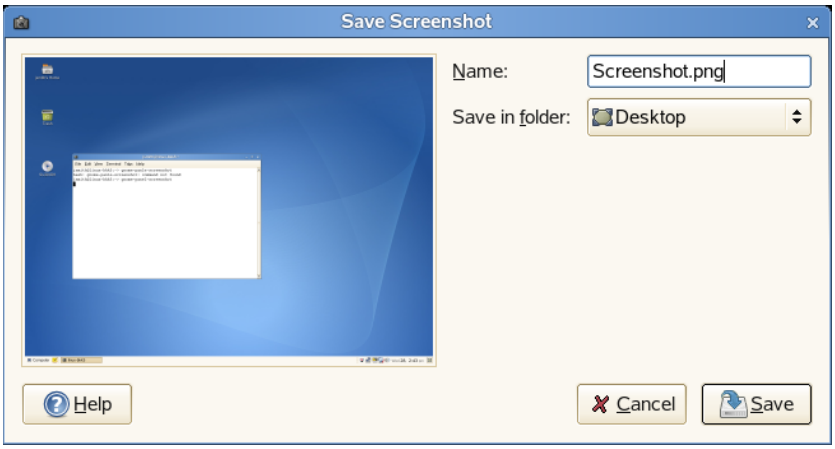
  You can use the following options with the `gnome-panel-screenshot` command:

  --window: Takes a screen shot of the currently active window.

  --delay=seconds: Takes a screen shot after the specified number of seconds, then displays the Save Screenshot dialog box.

When you take a screen shot, the Save Screenshot dialog box opens. To save the screen shot as an image file, enter the filename for the screen shot and choose a location from the drop-down list.

Figure 1-16 *Save Screenshot Dialog Box*



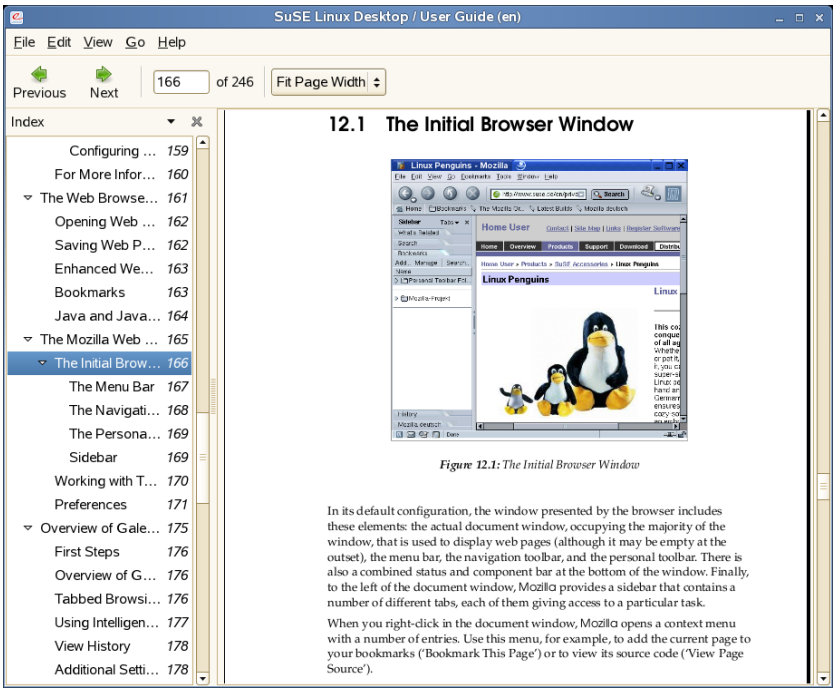
You can also use The GIMP to take screen shots. In The GIMP, click *File* > *Acquire* > *Screen Shot*, select *a Single Window* or *the Whole Screen*, then click *Grab*.

1.14 Viewing PDF Files

Documents that need to be shared or printed across platforms can be saved as PDF (Portable Document Format) files. SUSE Linux Enterprise Desktop ships with several PDF viewers, such as Evince and Adobe* Acrobat* Reader.

1. Click *Computer* > *More Applications* > *Office*.
2. Select *Acrobat Reader* or *Evince*.

3 To view a PDF file, click *File* > *Open*, locate the desired PDF file, then click *Open*.


SuSE Linux Desktop / User Guide (en)
File Edit View Go Help
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of 246
Fit Page Width
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Configuring ... 159
For More Infor... 160
The Web Browse... 161
Opening Web ... 162
Saving Web P... 162
Enhanced We... 163
Bookmarks 163
Java and Java... 164
The Mozilla Web ... 165
The Initial Brow... 166
The Menu Bar 167
The Navigati... 168
The Persona... 169
Sidebar 169
Working with T... 170
Preferences 171
Overview of Gale... 175
First Steps 176
Overview of G... 176
Tabbed Browsi... 176
Using Intelligen... 177
View History 178
Additional Setti... 178
12.1 The Initial Browser Window
Linux Penguins - Mozilla
Figure 12.1: The Initial Browser Window
In its default configuration, the window presented by the browser includes these elements: the actual document window, occupying the majority of the window, that is used to display web pages (although it may be empty at the outset), the menu bar, the navigation toolbar, and the personal toolbar. There is also a combined status and component bar at the bottom of the window. Finally, to the left of the document window, Mozilla provides a sidebar that contains a number of different tabs, each of them giving access to a particular task.
When you right-click in the document window, Mozilla opens a context menu with a number of entries. Use this menu, for example, to add the current page to your bookmarks ('Bookmark This Page') or to view its source code ('View Page Source').

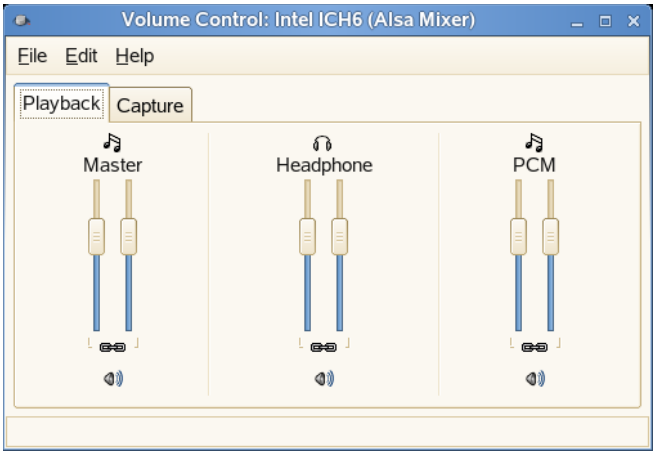
4 Use the navigation icons at the top of the window to navigate through the document. If your PDF document provides bookmarks, you can access them in the left panel of the viewer.

1.15 Controlling Sound

YaST automatically identifies and configures the sound cards in your computer. You can also use the YaST Hardware module to configure your sound card manually. When your sound card has been configured, you can control the volume and balance of the sound with the GNOME Volume Control mixer.

If the mixer icon (a loudspeaker symbol) is not visible in the panel on your desktop, press Alt+F2 and enter `gnome-volume-control`, or click *Computer* > *More Applications* > *Audio & Video* > *Volume Control*.

Figure 1-17 *GNOME Volume Control Dialog Box*



The GNOME Volume Control dialog box contains the following elements:

Menubar: The items on the menubar contain all of the commands that you need to work with the GNOME Volume Control.

Display area: The display area contains the channel faders and associated options for several mixers, which enable you to control the volume on those mixers.

NOTE: GNOME Volume Control populates the display area dynamically, based on the functionality supported by your sound card. The mixers displayed in your GNOME Volume Control window might be different to those shown in Figure 1-17 on page 47.

To increase the volume, slide the fader up. To decrease the volume, slide the fader down. To lock the left and right mixer channels together, select the *Lock* option for that mixer. When you lock the mixer channels, GNOME Volume Control synchronizes both faders. To silence a mixer, select the *Mute* option for that mixer. When you adjust the fader of a muted channel, GNOME Volume Control deselects the Mute option for that mixer.

Any mixer that has a Rec option can be a recording source. To specify the current recording source, select the Rec option for that mixer.

1.16 Managing Software Packages and Updates

The Novell ZENworks® tools serve as graphical front-ends for the ZENworks Management Daemon (zmd), allowing you to easily install or remove software, apply security updates, and manage services and catalogs.

1.16.1 Getting Permissions

Managing packages on a Linux system requires `root` privileges. Software Updater and rug (a new command line tool for installing and updating packages) have their own user management system that allows users to install software updates. When a user first invokes an action that requires special privileges in the ZENworks tools, a prompt for the `root` password appears. When the password has been verified, Software Updater automatically adds the user's account to the user management

system with update permissions. To review or change these settings, use the rug user management commands.

For more information, see rug User Management (http://www.novell.com/documentation/sled10/sled_deployment/data/sec_yast_ncurses_you2.html) in the *SUSE Linux Enterprise Desktop Deployment Guide*.

1.16.2 Obtaining and Installing Software Updates

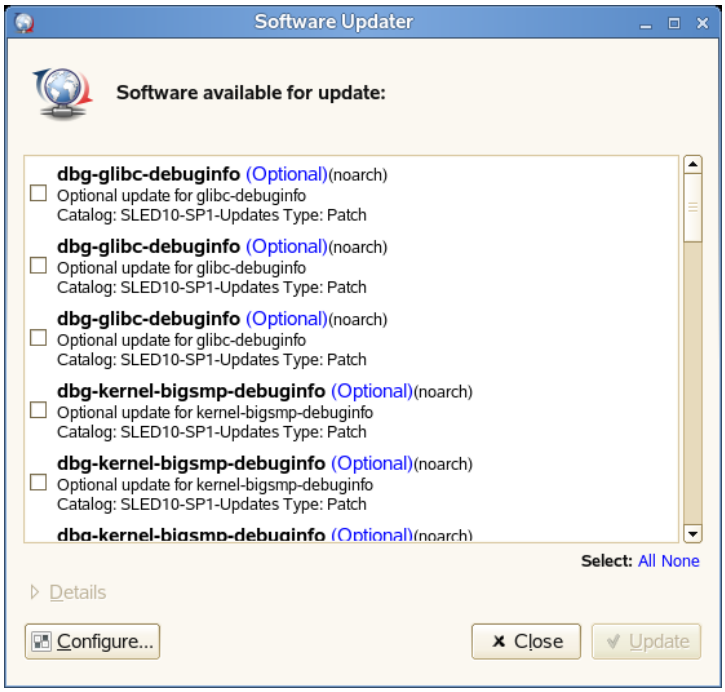
Software Updater resides in the notification area of your panel as an icon depicting a globe, which changes color and appearance depending on the availability of a network link and new updates. Once a day, Software Updater automatically checks whether updates for your system are available (right-click the application icon and select *Refresh* to force an immediate check). The Software Updater applet in the panel changes from a globe to an exclamation mark on an orange background when new updates are available.

Left-click the panel icon to open the updater window. A list of patches and new package versions display (if available). Each entry has a short description and, if applicable, a category icon. Security patches are marked with a yellow shield. Optional patches are marked with a light blue circle. Recommended patches are not marked with an icon. Security patches are listed first, then recommended patches, optional patches, and new package versions. Use the *All*, *Packages*, and *Patches* links to filter the list of displayed packages.

NOTE: Officially released updates from Novell show up as Patches. New package versions from other sources show up as Packages.

To get details about a certain entry, select the entry, then click the *Details* link under the list window. To select an entry for installation, select the entry's check box. Use the *All* and *None* links to select or deselect all patches. Click *Update* to install the selected programs.

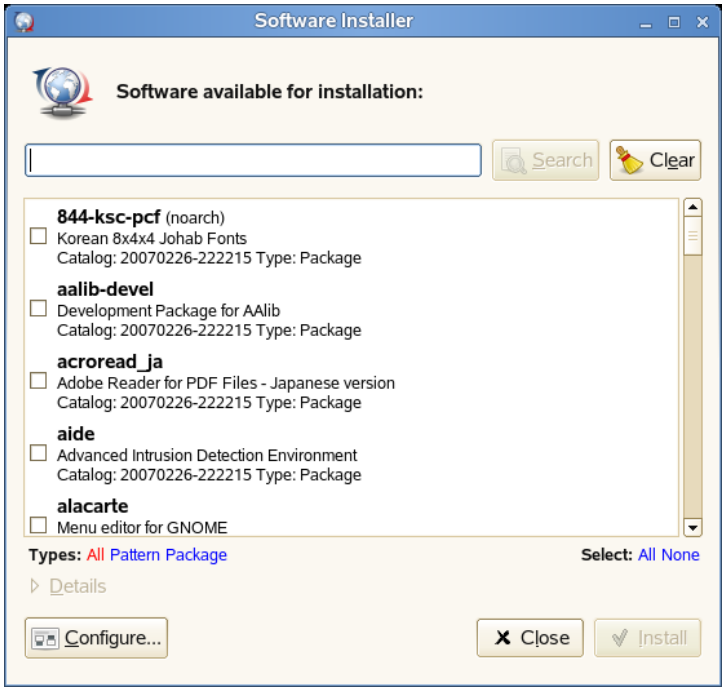
Figure 1-18 *Software Updater*



1.16.3 Installing Software

To install software packages, click *Computer* > *Install Software*, or enter `zen-installer` in a terminal. The interface is almost identical to the Software Updater; the only difference is a search panel you can use to search for single packages or to filter the list.

Figure 1-19 *Software Installer*

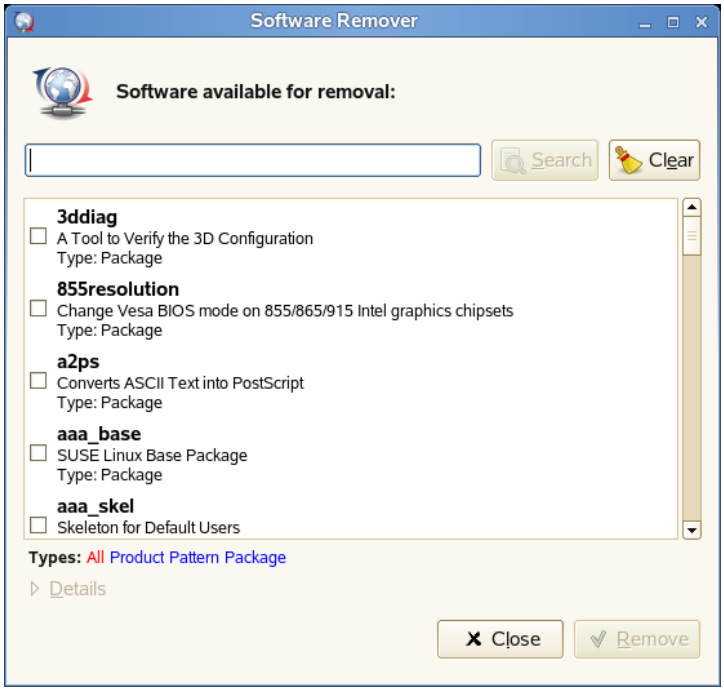


Select the packages that you want to install, then click *Install* to start the package installation. Possible dependencies on other packages are automatically resolved by the installer.

1.16.4 Removing Software

To remove software packages, click *Computer* > *More Applications* > *System* > *Remove Software*, or enter `zen-remover` in a terminal.

Figure 1-20 *Software Remover*



Use the *Products*, *Patterns*, *Packages*, and *Patches* links to narrow the list of packages. Select the packages you want to remove, then click *Remove* to start the package uninstallation. If other packages depend on the packages you selected, those packages will be removed as well. You must confirm the removal of additional packages. If you click *Cancel* in the confirmation dialog, no packages are uninstalled.

1.16.5 Configuring the Software Updater

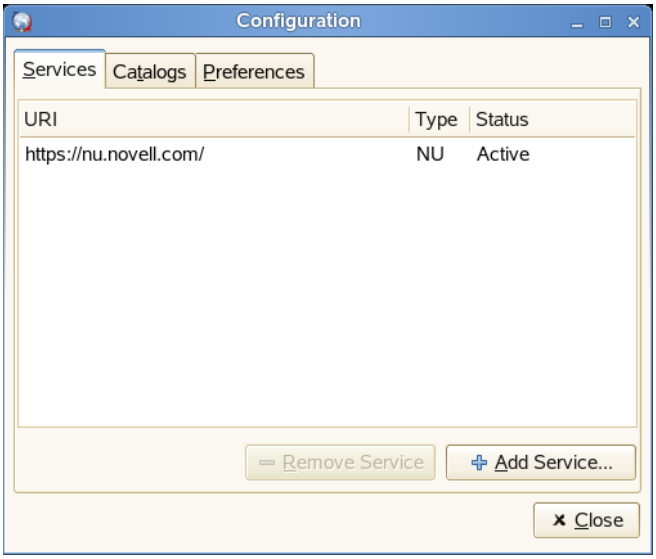
To configure the ZENworks tools, click *Configure* in the Software Updater window. A dialog box with three tabs opens:

- Services
- Catalogs
- Preferences

Services

Services are basically sources that provide software packages and information about these packages. Each service can offer one or more catalogs.

Figure 1-21 *Software Updater Services Configuration Dialog Box*



The Service tab lists all services available, together with type and status information (if you can't see the latter two, adjust the window size). Use *Remove Service* or *Add Service* to add or remove services. The following service types are available:

- YUM

  An HTTP, HTTPS, or FTP server using the RPM-MD format for the package data.

- ZYPP

  ZYPP services are the YaST installation sources added with *Software* > *Installation Source* in YaST. Use the Software Updater or YaST to add installation sources. The source you initially installed from (DVD or CD-ROM in most cases) is preconfigured. If you change or delete this source, replace it with another valid installation source (ZYPP service); otherwise, you will not be able to install new software.

  NOTE: The terms *YaST installation source*, *YaST package repository*, and *ZYPP service* are the same name for a source from which you can install software.

- Mount

  With Mount, you embed a directory mounted on your machine. This is useful if, for example, you are in a network that regularly mirrors the Novell YUM server and exports its content to the local network. To add the directory, provide the full path to the directory in *Service URI*.

- NU

  NU stands for Novell Update. Novell provides updates for SUSE Linux Enterprise exclusively as NU service. If you configured update during installation, the official Novell NU server is already present in the list.

  If you skipped the update configuration during installation, run the `suse_register` command in a terminal or click *Software* > *Product Registration* in YaST as `root`. The Novell Update server is automatically added to the Software Updater.

- RCE and ZENworks

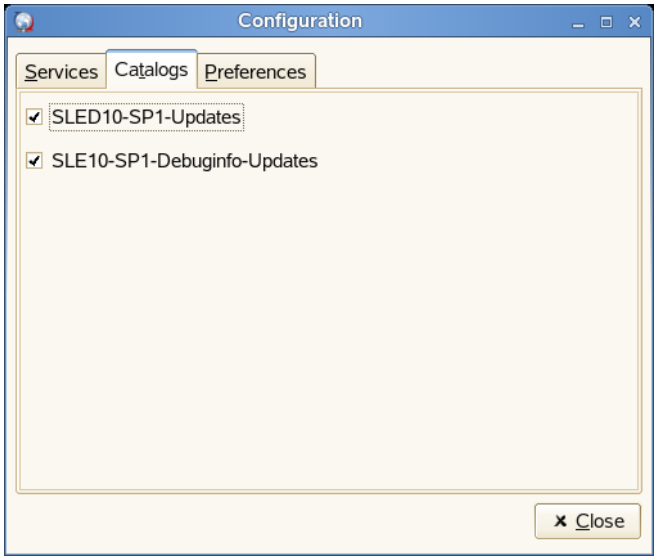
Opencarpet, Red Carpet Enterprise, or ZENworks services are only available if your company or organization has set up these services within your internal network. This might be the case if your organization is using third-party software for which updates are deployed on a single server.

After SUSE Linux Enterprise Desktop is installed, two services are preconfigured: your installation source (DVD, CD-ROM, or network resource) as a ZYPP service, and a SUSE Linux Enterprise update server as service, which is added during product registration. Normally, there is no need to change these settings. If you do not see a service, open a terminal and execute the `suse_register` command as `root`. A service is added automatically.

Catalogs

Services are able to provide packages for different pieces of software or for different software versions (typically RCE or ZENworks services do so). These are organized in different categories called catalogs. Subscribe or unsubscribe from a catalog by marking or unmarking the check box in front of it.

Figure 1-22 *Software Updater Catalogs Configuration Dialog Box*



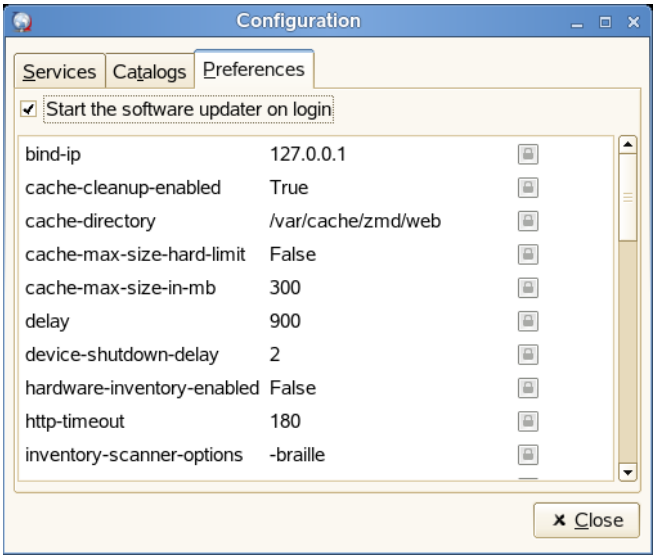
At the moment, the SUSE Linux services (YUM and ZYPP) do not provide different catalogs. Each service only has one catalog. If the Software Updater was configured during installation or with `suse_register`, it subscribes to the YUM and ZYPP catalogs automatically. If you manually add a service, you must subscribe to its catalogs.

WARNING: To install packages from a catalog, you must be subscribed to this catalog. If you unsubscribe, the packages from this catalog are still listed in the update window, but you cannot install them.

Preferences

On the Preferences tab, specify whether Software Updater should be launched at startup. As the `root` user, you can also modify the Software Updater settings. As a nonprivileged user, you can only view the settings. See the rug man page for an explanation of the settings.

Figure 1-23 *Software Updater Preferences Configuration Dialog Box*



1.17 Other Useful Programs

In addition to the programs already discussed, like applets you can add to a panel, the system also includes additional programs, organized in categories in the Application Browser. To access the programs, open the Application Browser by clicking *Computer* > *More Applications*, then browse through the categories to see which applications are available. Categories include the following:

Table 1-9 *Other GNOME Applications*

Category	Types of Programs
Applications	Applications for browsing files and other uses
Audio & Video	Music players, CD databases, video editors, CD and DVD burners, volume controllers, and other audio and video applications
Browse	Applications for browsing the Internet and your computer's file system
Communicate	E-mail, instant messaging, video conferencing, and other communication tools
Games	Card games, arcade favorites, and puzzles
Images	Image viewers and editors, drawing programs, photo browsers, scanning programs
Office	Word processors and text editors, spreadsheets, presentation software, database software, project management utilities, PDF readers, personal information managers, calendars
System	Applications for configuring and managing your system
Tools	System customization, search configuration, calculators, and other tools
Other	New applications you have added to your system, and the SUSE Help Center

The remaining chapters in this guide describe some of the more commonly used applications.

Customizing Your Settings

2

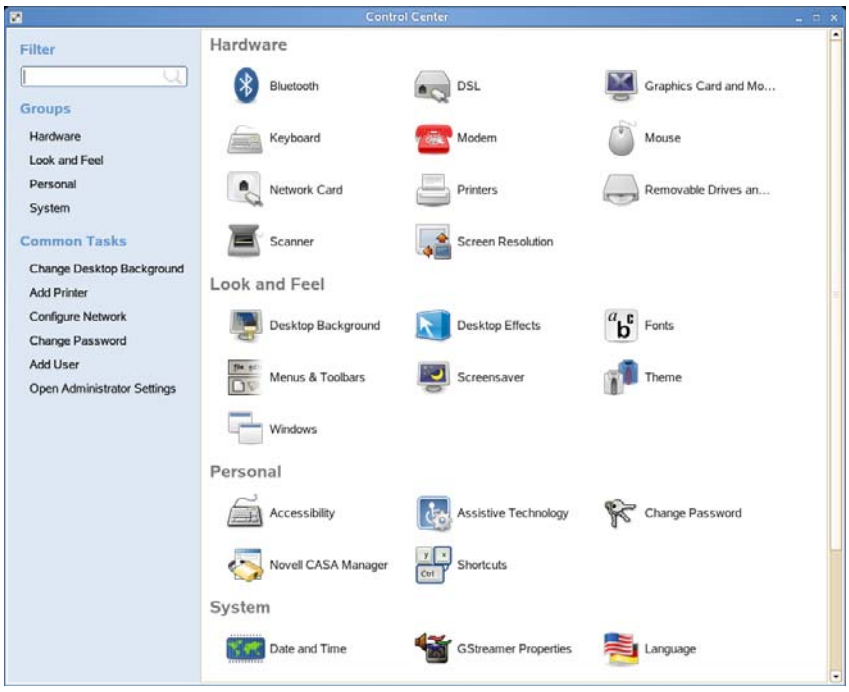
You can change the way the GNOME desktop looks and behaves to suit your own personal tastes and needs. Some of the settings you might want to change include:

- Keyboard and mouse configuration (see Section 2.1.4, “Modifying Keyboard Preferences,” on page 57 and Section 2.1.6, “Configuring the Mouse,” on page 62)
- Desktop background (see Section 2.2.1, “Changing the Desktop Background,” on page 67)
- Screen saver (see Section 2.2.5, “Configuring the Screen Saver,” on page 81)
- Password (see Section 2.3.3, “Changing Your Password,” on page 87)
- Sounds (see Section 2.4.10, “Setting Sound Preferences,” on page 97)

These settings and others can be changed in the Control Center. To access the Control Center, click *Computer* > *Control Center*. The Control Center is divided into the following four categories:

- Hardware (page 56)
- Look and Feel (page 66)
- Personal (page 84)
- System (page 89)

Figure 2-1 *GNOME Control Center*



Some settings require that you use the YaST Control Center. These administrator settings includes most of the hardware, the graphical user interface, Internet access, security settings, user administration, software installation, and system updates and information. You need the `root` password to access the YaST Control Center.

For information on configuring administrator settings, see System Configuration with YaST (http://www.novell.com/documentation/sled10/sled_deployment/data/cha_yast2.html#cha_yast2) in the *SUSE Linux Enterprise Desktop Deployment Guide*.

2.1 Hardware

Hardware settings include the following:

- Section 2.1.1, “Configuring Bluetooth Services,” on page 56
- Section 2.1.2, “Configuring Your DSL Connection,” on page 56
- Section 2.1.3, “Configuring Your Graphics Card and Monitor,” on page 57
- Section 2.1.4, “Modifying Keyboard Preferences,” on page 57
- Section 2.1.5, “Configuring a Modem,” on page 61
- Section 2.1.6, “Configuring the Mouse,” on page 62
- Section 2.1.7, “Configuring a Network Card,” on page 64
- Section 2.1.8, “Installing and Configuring Printers,” on page 64
- Section 2.1.9, “Configuring Removable Drives and Media,” on page 65
- Section 2.1.10, “Configuring a Scanner,” on page 65
- Section 2.1.11, “Specifying Screen Resolution Settings,” on page 65
- Section 2.1.12, “Touchpad,” on page 66

2.1.1 Configuring Bluetooth Services

Bluetooth services enable you to connect wireless devices such as mobile phones and personal data assistants (PDAs) to your computer. Bluetooth wireless support includes automatic recognition of Bluetooth-enabled devices via the YaST central configuration and administration tool. Click *Computer* > *Control Center* > *Hardware* > *Bluetooth*, then set the configuration options that are appropriate for your device.

NOTE: Root privileges are required for configuring Bluetooth services.

2.1.2 Configuring Your DSL Connection

If you connect to a network over a DSL Connection, use this option to configure your connection. The DSL connection is configured in YaST.

NOTE: Root privileges are required for configuring your DSL Connection.

1. Click *Computer* > *Control Center* > *Hardware* > *DSL*.
2. Enter the root password.

   YaST opens.
3. Follow the instructions in YaST to configure DSL.

2.1.3 Configuring Your Graphics Card and Monitor

Your graphics card was configured for your monitor during installation. If you ever need to change these settings, click *Computer* > *Control Center* > *Hardware* > *Graphics Card and Monitor*, then set the appropriate options for your monitor.

NOTE: Graphics card configuration is done in YaST2 and requires root privileges.

2.1.4 Modifying Keyboard Preferences

Use the Keyboard Preferences tool to modify the autorepeat preferences for your keyboard and to configure typing break settings.

Click *Computer* > *Control Center* > *Hardware* > *Keyboard*.

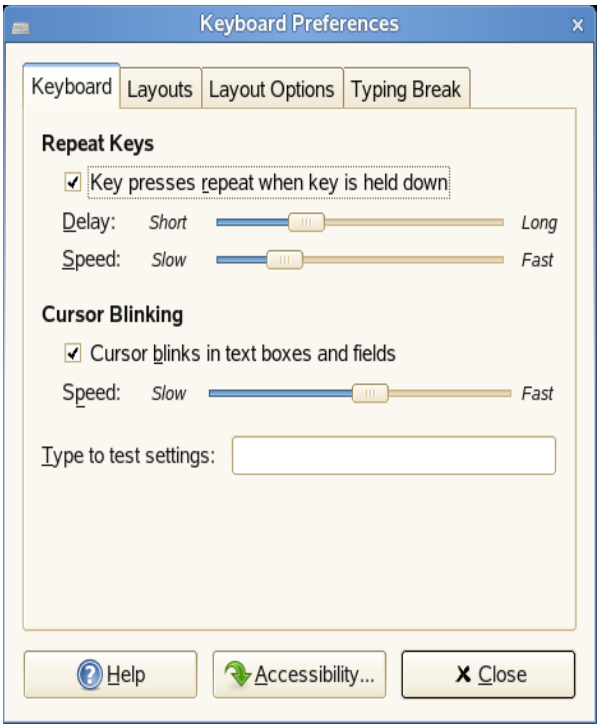
You can set the following preferences:

- Keyboard
- Layouts
- Layout Options
- Typing Break

Configuring Keyboard Preferences

Use the Keyboard tabbed page to set general keyboard preferences.

Figure 2-2 *Keyboard Preferences Dialog—Keyboard Page*



You can modify any of the following keyboard preferences:

Table 2-1 *Keyboard Preferences*

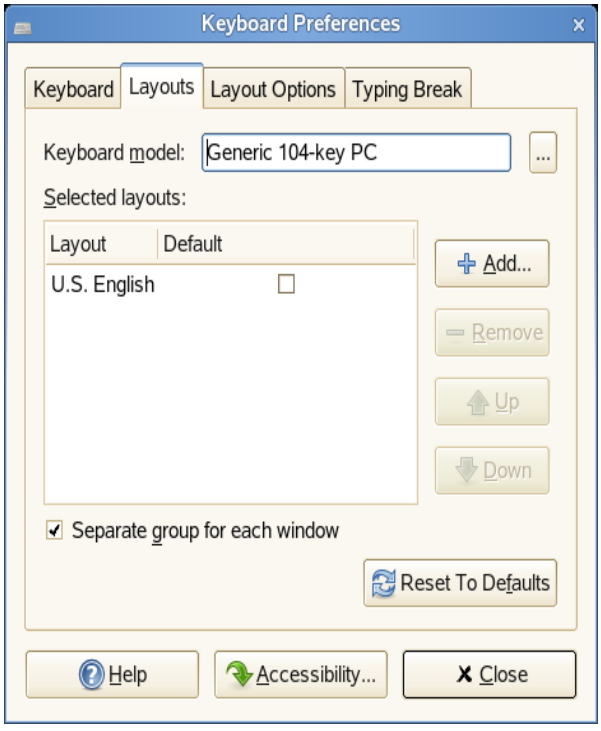
Option	Description
Key Presses Repeat When Key is Held Down	Enables keyboard repeat. The action associated with a key is performed repeatedly when you press and hold that key. For example, if you press and hold a character key, the character is typed repeatedly. Use the *Delay* option to select the delay from the time you press a key to the time that the action repeats. Use the *Speed* option to set the speed at which the action is repeated.
Cursor Blinks in Text Boxes and Fields	Lets the cursor blink in fields and text boxes. Use the slider to specify the speed at which the cursor blinks.
Type to Test Settings	The test area is an interactive interface that lets you see how the keyboard settings affect the display as you type. Type text in the test area to test the effect of your settings.

Click the *Accessibility* button to start the Keyboard accessibility preference tool.

Configuring Keyboard Layout Preferences

Use the Layouts tabbed page to set your keyboard layout.

Figure 2-3 *Keyboard Preferences Dialog—Layouts Page*



Select your keyboard model from the drop-down list, then use the navigational buttons to add or remove the selected layout to or from the list of available layouts.

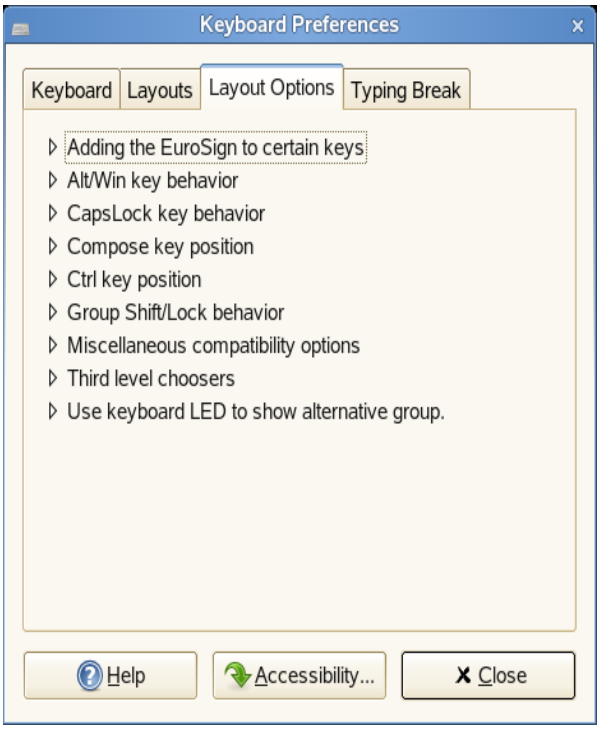
You can select different layouts to suit different locales.

Click the *Accessibility* button to start the Keyboard accessibility preference tool.

Configuring Keyboard Layout Options

Use the Layout Options tabbed page to set your keyboard layout options. These options determine the behavior of certain keys and other keyboard settings.

Figure 2-4 *Keyboard Preferences Dialog—Layout Options Page*



Select an option to open a submenu for that option, then select the desired settings. For most users, there is no need to change these settings.

Table 2-2 *Keyboard Layout Options*

Layout Option	Description
Adding the EuroSign to certain keys	If supported by your keyboard, add the Euro sign as the third-level character on the E, 5, or 2 key.
Alt/Win key behavior	Assign the behavior of the Unix Super, Meta, and Hyper modifier keys to the Alt and Windows keys.
CapsLock key behavior	Choose from a number of that specify the behavior of the Caps Lock key.

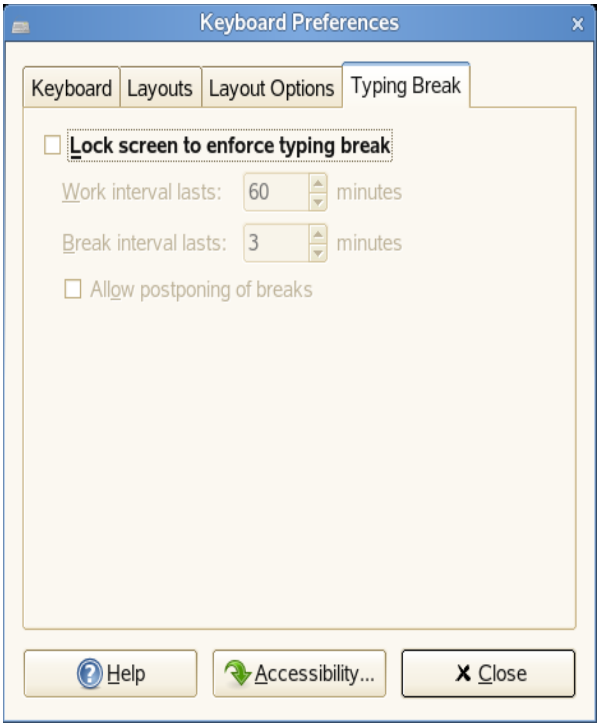
Layout Option	Description
Compose key position	Specifies the key to be used as the Compose key. Use the Compose key to combine two keystrokes to make one character, such as an accented character that is not on your keyboard layout.
Ctrl key position	Specify the key that acts as the Ctrl key. This is useful on older keyboards that do not have a Ctrl key.
Group Shift/Lock behavior	Select keys or combinations of keys that switch your keyboard layout when pressed.
Miscellaneous compatibility options	Specify whether shift works with the Num Lock key on a numerical keypad as it does on Windows. If not selected, use shift with the numerical keypad to obtain the reverse of the current behavior. For example, when Num Lock is off, the 8 key acts as an up arrow. Press Shift+8 to type the number 8. Also, specify whether certain keyboard shutcuts are processed by the X windowing system rather than by GNOME.
Third level choosers	If a third-level chooser is specified, you can obtain a third character from certain keys in the same way that using Shift with a key produces a different key than pressing that key without shift. For example, if you add the Euro sign to the E key and set the left Windows key as the third-level chooser, then pressing Left-Windows+E produces the Euro sign.
Use keyboard LED to show alternative group	Specify that one of the keyboard lights indicates when you are using an alternative keyboard layout. That light will no longer indicate its standard function.

Click the *Accessibility* button to start the Keyboard accessibility preference tool.

Configuring Typing Break Preferences

Use the Typing Break tabbed page to set typing break preferences.

Figure 2-5 *Keyboard Preferences Dialog—Typing Break Page*



You can modify any of the following typing break preferences:

Table 2-3 *Typing Break Preferences*

Option	Description
Lock Screen to Enforce Typing Break	Locks the screen when you are due a typing break.
Work Interval Lasts	Lets you specify how long you can work before a typing break occurs.
Break Interval Lasts	Lets you specify the length of your typing breaks.
Allow Postponing of Breaks	Lets you postpone typing breaks.

Click the *Accessibility* button to start the Keyboard accessibility preference tool.

2.1.5 Configuring a Modem

If you connect to a network over a modem, use this option to configure your modem. The modem is configured in YaST.

NOTE: Root privileges are required for configuring your modem.

1. Click *Computer* > *Control Center* > *Hardware* > *Modem*.
2. Enter the root password.

YaST opens.

3 Follow the instructions in YaST to configure the modem.

2.1.6 Configuring the Mouse

Use the Mouse Preference tool to configure your mouse for right-hand use or for left-hand use. You can also specify the speed and sensitivity of mouse movement.

Click *Computer* > *Control Panel* > *Hardware* > *Mouse*.

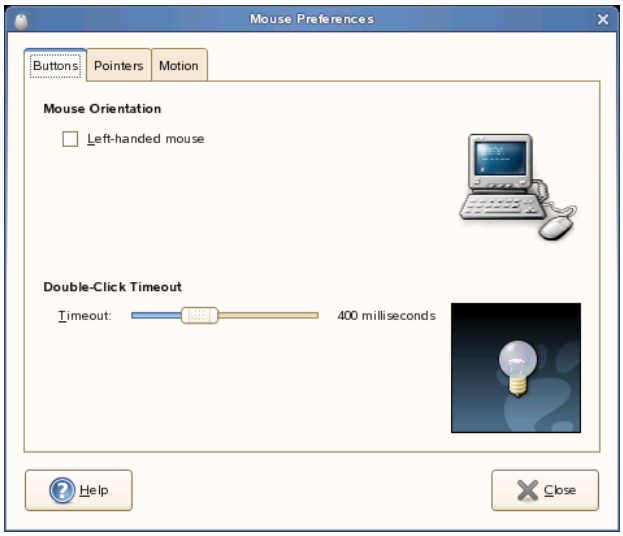
You can customize the settings for the Mouse Preference tool in the following areas:

- Buttons
- Cursors
- Motion

Configuring Button Preferences

Use the Buttons tabbed page to specify whether the mouse buttons are configured for left-hand use. You can also specify the delay between clicks for a double-click.

Figure 2-6 *Mouse Preferences Dialog—Buttons Page*



The following table lists the mouse button preferences you can modify.

Table 2-4 *Mouse Button Preferences*

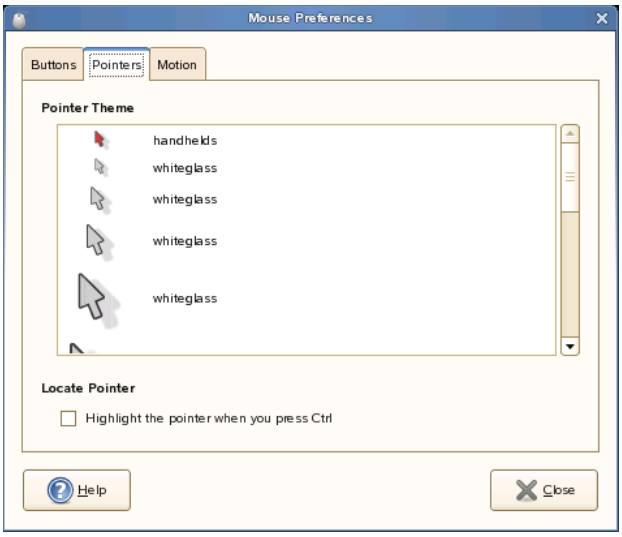
Option	Description
Left-handed Mouse	Configures your mouse for left-hand use, swapping the functions of the left mouse button.

Option	Description
Double-Click Timeout	Use the slider to specify the amount of time that can pass between clicks when you double-click. If the interval between the first and second clicks exceeds the time that is specified here, the action is not interpreted as a double-click.

Configuring Pointer Preferences

Use the Cursors tabbed page to set your mouse pointer preferences.

Figure 2-7 *Mouse Preferences Dialog—Pointers Page*



The following table lists the mouse pointer preferences you can modify.

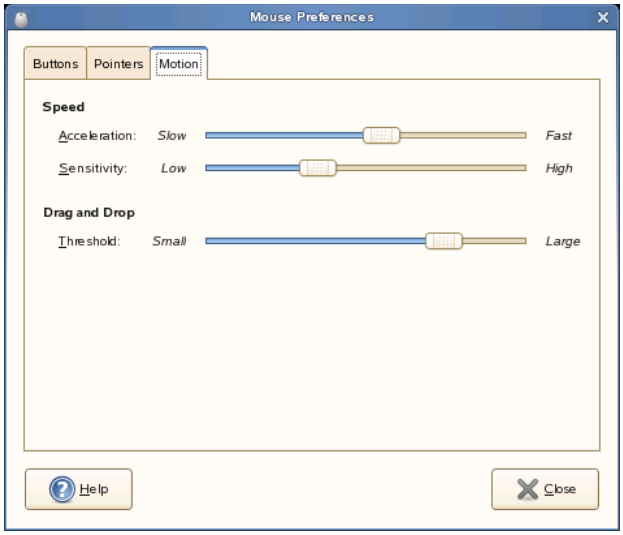
Table 2-5 *Mouse Pointer Preferences*

Option	Description
Cursor Theme	Displays the available cursor themes.
Highlight the Pointer When You Press Ctrl	Enables a mouse pointer animation when you press and release Ctrl. This feature can help you locate the mouse pointer.

Configuring Motion Preferences

Use the Motion tabbed page to set your preferences for mouse movement.

Figure 2-8 *Mouse Preferences Dialog—Motion Page*



The following table lists the mouse motion preferences you can modify.

Table 2-6 *Mouse Motion Preferences*

Option	Description
Acceleration	Use the slider to specify the speed at which your mouse pointer moves on your screen when you move your mouse.
Sensitivity	Use the slider to specify how sensitive your mouse pointer is to movements of your mouse.
Threshold	Use the slider to specify the distance that you must move an item before the move action is interpreted as a drag and drop action.

2.1.7 Configuring a Network Card

If you connect to a network over a network card, use this option to configure your connection. The network card is configured in YaST.

NOTE: Root privileges are required for configuring your network card.

1. Click *Computer* > *Control Center* > *Hardware* > *Network Card*.
2. Enter the root password.

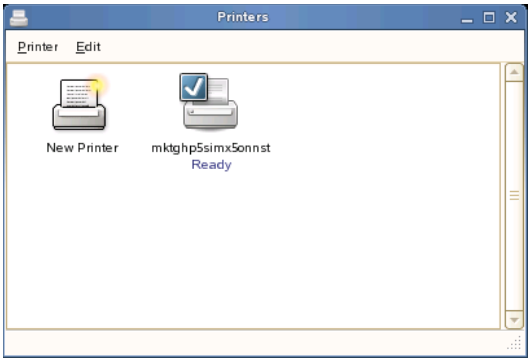
   YaST opens.
3. Follow the instructions in YaST to configure the network card.

2.1.8 Installing and Configuring Printers

Use the Printers module to install and configure printers.

To start the Printers module, click *Computer* > *Control Center* > *Hardware* > *Printers*.

Figure 2-9 *Printers Dialog*



2.1.9 Configuring Removable Drives and Media

You can use a wide variety of removable drives and media, including storage devices, cameras, scanners, and more. The configurations for many of these devices are set up automatically during installation. To change the configuration for a drive or other removable device, click *Computer* > *Control Center* > *Hardware* > *Removable Drives and Media*.

Some of the possible configuration settings include:

- What happens when a blank CD is inserted in the CD drive
- What happens when an audio CD is inserted in the drive
- Whether images are automatically imported from a digital camera when it is attached to the computer
- Whether removable storage devices are mounted when they are plugged in to the computer
- Whether PDAs are automatically synced when attached to the computer

In general, you do not need to change the settings that are already configured unless you want to change the behavior when a device is connected or if you want to connect a new device that is not yet configured. If you attach a device for the first time and it behaves in an unexpected or undesired way, check the Removable Drives and Media settings.

2.1.10 Configuring a Scanner

The Scanner configuration enables you to attach and configure a scanner, or to remove an already-attached scanner.

NOTE: Scanner configuration is done in YaST2 and requires root privileges.

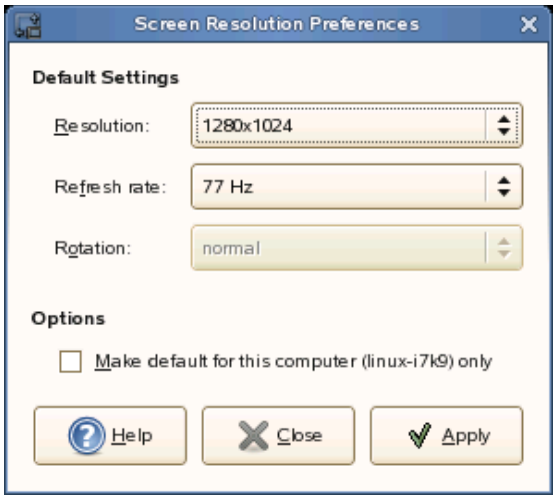
To open YaST2 and configure a scanner, click *Computer* > *Control Center* > *Hardware* > *Scanner*. Refer to the instructions on the *Scanner Configuration* screen for information about the available options.

2.1.11 Specifying Screen Resolution Settings

Use this module to specify the resolution settings for your screen, including Resolution and Refresh Rate.

Click *Computer* > *Control Center* > *Hardware* > *Screen Resolution*.

Figure 2-10 *Screen Resolution Preferences Dialog*



The following table lists the screen resolution preferences you can modify.

Table 2-7 *Screen Resolution Preferences*

Option	Description
Resolution	Select the resolution (in pixels) to use for the screen.
Refresh Rate	Select the refresh rate to use for the screen.
Rotation	Select the rotation mode for your screen if you use a nonstandard monitor.
Make Default for This Computer Only	Makes the screen resolution settings the default settings only for the computer that you are logged in to.

If you cannot find a setting you want, you might need to use the Administrator Settings to reconfigure your graphics card and monitor settings. See Configuring the Graphics Card and Monitor (http://www.novell.com/documentation/nld/nld_deployment/data/bsj9mwg.html#bsmqn45) in the *Deployment Guide* for more information.

2.1.12 Touchpad

Use this module to configure the behavior of a touchpad. This module is only available on computers containing touchpads, such as laptops. In most cases, the default behavior should remain unchanged.

2.2 Look and Feel

Look and Feel settings include the following:

- Section 2.2.1, “Changing the Desktop Background,” on page 67

- Section 2.2.2, “Configuring Desktop Effects,” on page 68
- Section 2.2.3, “Configuring Fonts,” on page 79
- Section 2.2.4, “Configuring Menus and Toolbars,” on page 81
- Section 2.2.5, “Configuring the Screen Saver,” on page 81
- Section 2.2.6, “Choosing a Theme,” on page 82
- Section 2.2.7, “Customizing Window Behavior,” on page 84

2.2.1 Changing the Desktop Background

The desktop background is the image or color that is applied to your desktop. You can customize the desktop background in the following ways:

- Select an image for the desktop background. The image is superimposed on the desktop background color. The desktop background color is visible if you select a transparent image or if the image does not cover the entire desktop.
- Select a color for the desktop background. You can select a solid color or create a gradient effect with two colors. A gradient effect is a visual effect where one color blends gradually into another color.

To change the desktop preferences:

1. Click *Computer* > *Control Center* > *Look and Feel* > *Desktop Background*.
2. Set the desktop preferences the way that you want them.

   The following settings can be changed:

Table 2-8 *Background Preferences*

Option	Description
Desktop Wallpaper	Displays an image of your choice on the desktop.
Style	Determines what processing steps should be applied to the selected image to adapt it optimally to the current screen resolution. To specify how to display the image, select one of the following options from the *Style* drop-down list: ◆ **Centered:** Displays the image in the middle of the desktop. ◆ **Fill Screen:** Enlarges the image to cover the desktop and maintains the relative dimensions of the image. ◆ **Scaled:** Enlarges the image until the image meets the screen edges and maintains the relative dimensions of the image. ◆ **Tiled:** Repeats the image over the entire screen.
Add Wallpaper	Opens a dialog where you can select an image file to use as the background picture.
Remove	Removes a Desktop Wallpaper after you select it and then click *Remove*.

Option	Description
Desktop Colors	Lets you specify a color scheme using the options in the *Desktop Color* drop-down list and the color selector buttons. You can specify a color scheme using any of the following options: ◆ *Solid Color* specifies a single color for the desktop background. To select a color, click *Color*. In the Pick a Color dialog, select a color and then click *OK* ◆ *Horizontal Gradient* creates a gradient effect from the left screen edge to the right screen edge. Click *Left Color* to display the Pick a Color dialog, then select the color that you want to appear at the left edge. Click *Right Color*, then select the color that you want to appear at the right edge. ◆ *Vertical Gradient* creates a gradient effect from the top screen edge to the bottom screen edge. Click *Top Color* to display the Pick a Color dialog, then select the color that you want to appear at the top edge. Click *Bottom Color*, then select the color that you want to appear at the bottom edge.

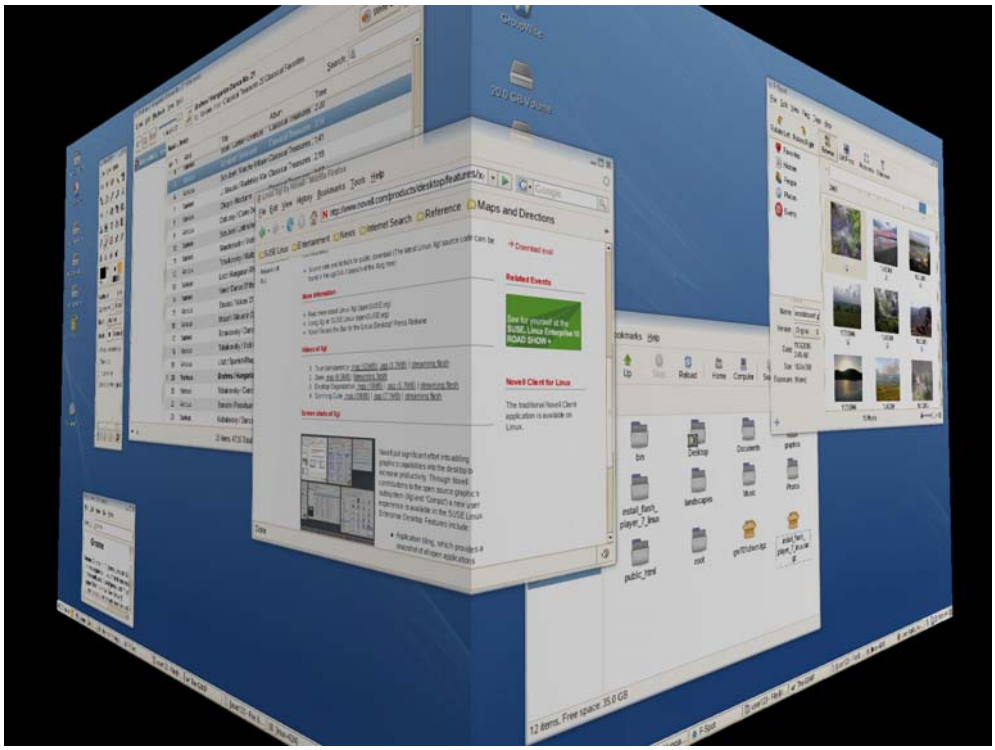
3 When you are satisfied with your choices, click Close.

Your desktop immediately changes to show the new settings.

2.2.2 Configuring Desktop Effects

Xgl is an Xserver architecture that lets you turn your desktop into a rotating 3-D cube, tile windows so they don't overlap, and switch tasks while viewing live thumbnails. You can enable translucent or transparent windows, zoom in and out of the desktop screen, and use other window effects such as shadows, fading, and transformations. You can also configure windows to snap to other windows and screen edges when they are moved.

Figure 2-11 *3-D Desktop*



Enabling Desktop Effects

To enable Xgl, you need a graphics adapter capable of providing 3-D support, and you also need the graphics driver that Linux uses to operate the graphics adapter. This driver must be able to handle OpenGL (or 3-D) requests from the Linux kernel. For a list of supported adapters, see the `/etc/X11/xgl-hardware-list` file that is included with the SUSE Linux Enterprise Desktop installation. This file tells you which graphics cards are known to work with Xgl, which cards do not work with Xgl, and which cards might work with Xgl but are not supported because they are either too slow or contain too many known defects.

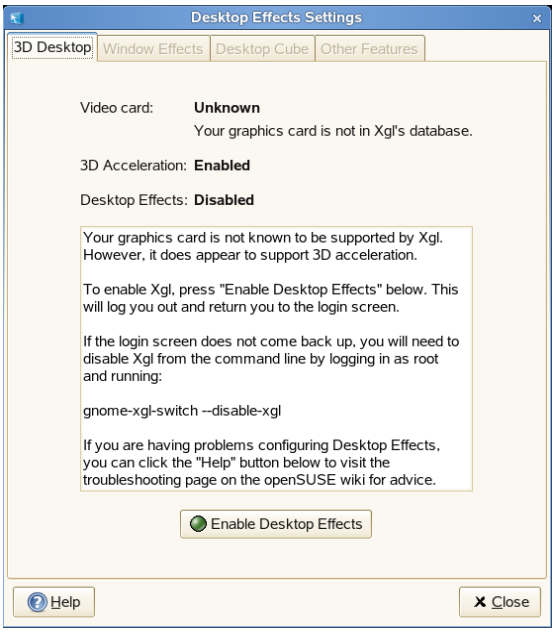
Your screen resolution must be within the 1024x768 to 1920x2000 range, and your color depth must be set at 24-bit. 3-D acceleration must also be enabled. Use SaX2 to change your graphics card and monitor properties if necessary.

To enable desktop effects:

1. Click *Computer* > *Control Center*.
2. Click *Desktop Effects* in the *Look and Feel* group.

   The Desktop Effects tool analyzes your system and tries to determine whether or not you can run Xgl. If it finds anything wrong, it advises you on what actions you can take. For example,

you might be advised to change your screen resolution or color depth, or to activate 3-D acceleration. Follow the on-screen prompts to configure your system for Xgl.


Desktop Effects Settings
3D Desktop
Window Effects
Desktop Cube
Other Features
Video card: Unknown
Your graphics card is not in Xgl's database.
3D Acceleration: Enabled
Desktop Effects: Disabled
Your graphics card is not known to be supported by Xgl. However, it does appear to support 3D acceleration.
To enable Xgl, press "Enable Desktop Effects" below. This will log you out and return you to the login screen.
If the login screen does not come back up, you will need to disable Xgl from the command line by logging in as root and running:
gnome-xgl-switch --disable-xgl
If you are having problems configuring Desktop Effects, you can click the "Help" button below to visit the troubleshooting page on the openSUSE wiki for advice.
Enable Desktop Effects
Help
Close

3 After your system is configured for Xgl, click *Enable Desktop Effects*.

4 Type the `root` password, then click *Continue*.

5 Click *Log Out* to log out of your session, then type your username and password to log back in.

   The default desktop effects are now enabled. For example, windows “wobble” when they first appear and when you move them, they fade away when you close them, and dragging a window to the far right of the screen rotates the desktop cube. To change any of these effects, see “Modifying Desktop Effects” on page 70.

You can also enable Xgl by running the following command as `root`:

```
gnome-xgl-switch --enable-xgl
```

To disable Xgl, click *Disable Desktop Effects* in the Desktop Effects Settings dialog box, or run the following command as `root`:

```
gnome-xgl-switch --disable-xgl
```

Modifying Desktop Effects

Use the Desktop Effects Settings tool to enable or disable specific desktop effects, or to change the keystrokes or mouse actions used to control those effects.

1 Click *Computer* > *Control Center*.

2 Click *Desktop Effects* in the *Look and Feel* group.

3 Choose from the following options:

- Window Effects
- Desktop Cube
- Other Features

4 When you finish making changes, click *Close*.

You can also use gconf-editor to change Xgl settings.

1 Click *Computer* > *More Applications* > *System* > *GNOME Configuration Editor* or press Alt+F2 and enter `gconf-editor`.

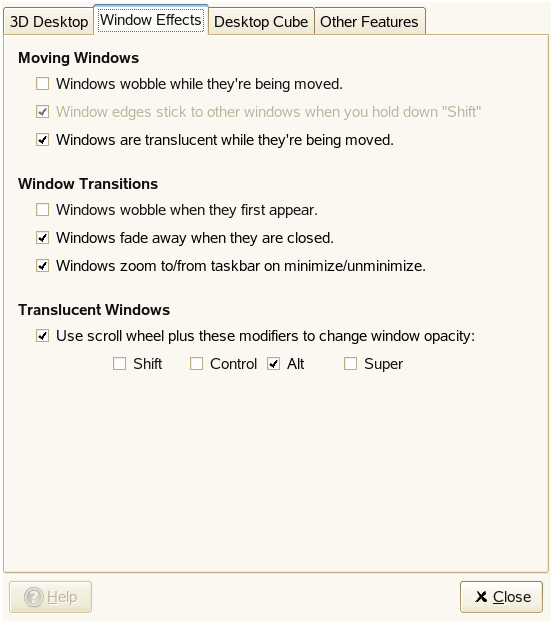
2 Navigate to the `apps/compiz/general` and `apps/compiz/plugins` registry folders and make the changes you want.

3 Click *File* > *Quit* to close the Configuration Editor.

Window Effects

Use the options on this tabbed page to specify what happens when you move windows, how window transitions appear, and to change window opacity.

Figure 2-12 *Window Effects Tabbed Page*



Moving Windows

By default, windows appear transparent when you move them. If you want window edges to stick (snap) to other windows and workspace edges when you hold down the Shift key while moving the window, both the *Windows wobble while they're being moved* and *Window edges stick to other windows when you hold down "Shift"* options must be selected.

You can also choose to make windows appear distorted (wobbly) as you move or resize them, giving the impression that the window is more fluid than rigid.

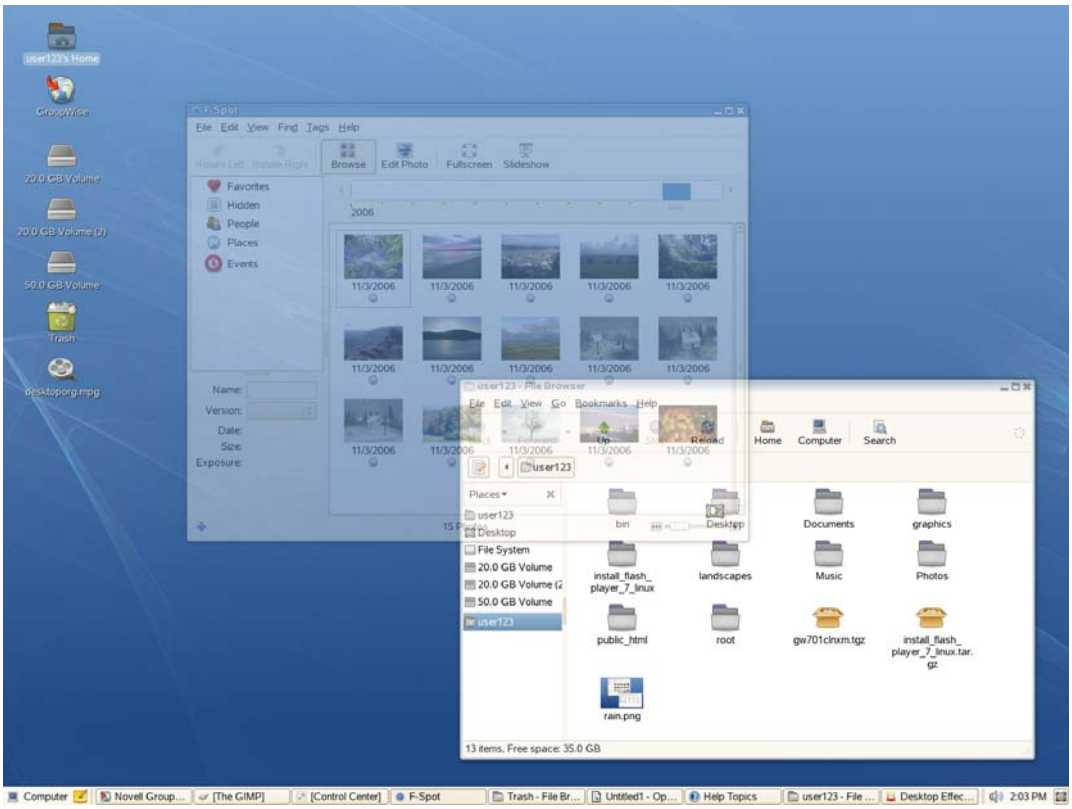
Window Transitions

These options let you add a fade-in and fade-out effect to windows and menus when you open and close them. Windows will also shrink smoothly onto the task bar when they are minimized and will grow smoothly back to their normal size when they are reopened.

Translucent Windows

This option lets you use the scroll wheel to change how transparent a window appears on-screen. Select *Use scroll wheel plus these modifiers to change window opacity*, then select the button or combination of buttons you want to use. Select a window, hold down the button or buttons you selected, then scroll the mouse wheel up or down to change the transparency of the window.

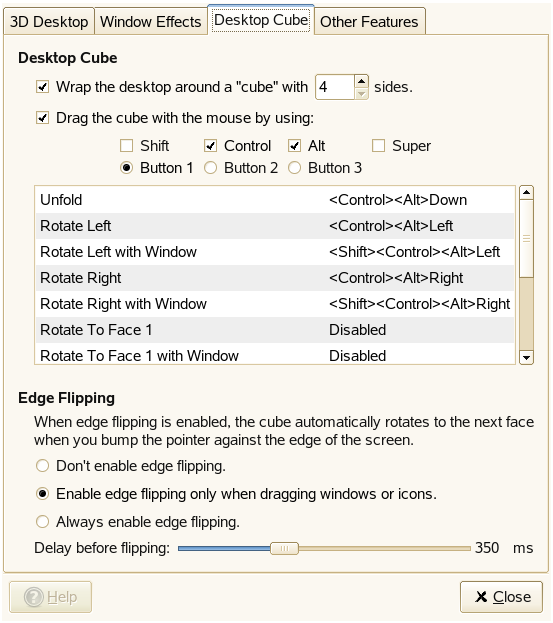
Figure 2-13 *Translucent Window*



Desktop Cube

Use the options on this tabbed page to specify how many sides your desktop cube has, which keystroke and mouse button combination you can use to drag the cube, and to configure edge flipping.

Figure 2-14 *Desktop Cube Tabbed Page*



Desktop Cube

By default, this option gives you four desktops on the faces of a virtual cube that you can rotate to access each desktop. This provides extra space in which to arrange open applications and windows. For example, you can put an editor on one desktop, some shells on another, and your e-mail application and Web browser on the third desktop. Using Ctrl+Alt+Left arrow and Ctrl+Alt+Right arrow, you can rotate the cube to access the programs running in the selected desktop and avoid windows piled on top of each other on one desktop.

Dragging a window to the edge of the screen rotates the cube and places the window on the new desktop. To rotate the cube manually in 3-D, press Ctrl+Alt, left-click the desktop, then drag the mouse pointer. Ctrl+Alt+Shift+Left-arrow or Right-arrow lets you rotate the cube while taking the currently selected window with you.

Use the options under *Drag the cube with the mouse by using* to change the default keystrokes used to rotate the cube.

For information on how to add an image behind your cube, see “Displaying a Skydome Image Behind the Cube” on page 78.

Edge Flipping

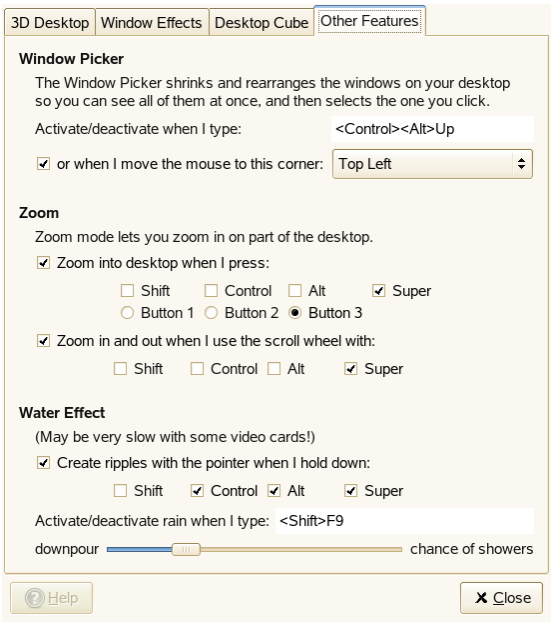
When edge flipping is enabled, the desktop cube rotates to the next face when you bump the mouse pointer to the edge of the screen. You can choose to always enable edge flipping or to enable edge flipping only when you drag a window or icon to the edge of the desktop.

Use the slider bar at the bottom of the tabbed window to specify how long (in microseconds) it takes to rotate the cube after you bump the edge of the desktop with a window or the mouse pointer.

Other Features

Use the options on this tabbed page to configure window tiling, zooming, and water effects.

Figure 2-15 *Other Features Tabbed Page*



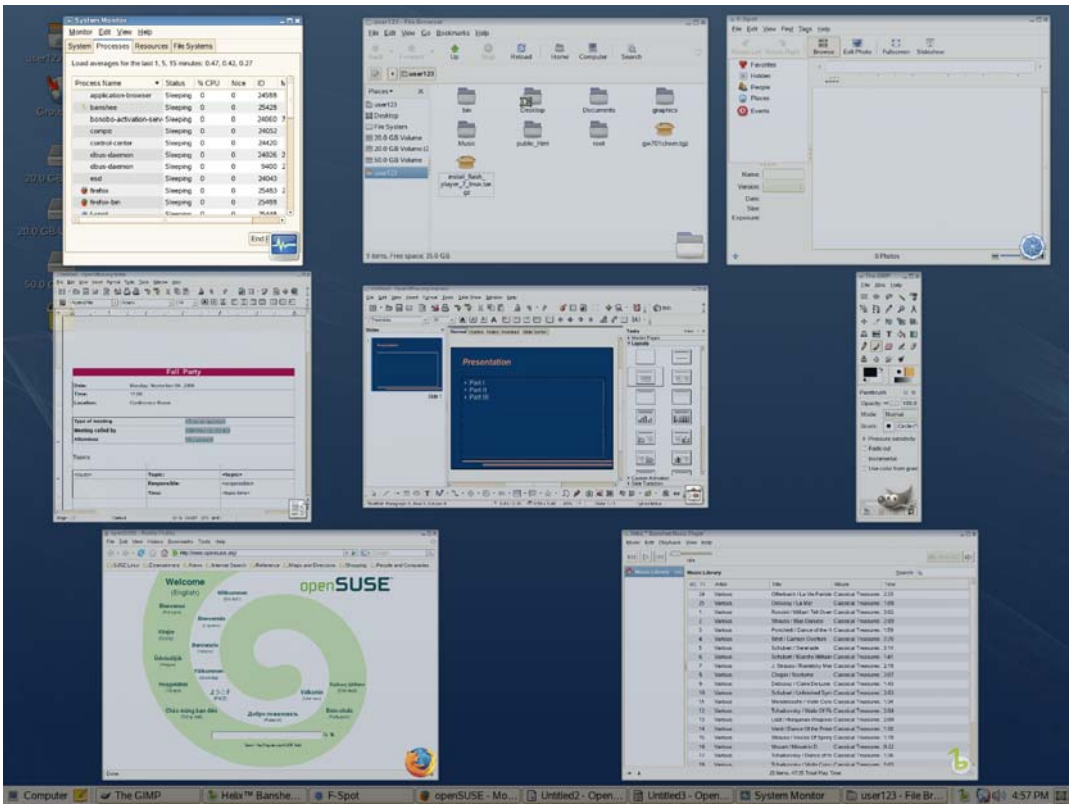
Window Picker

This option lets you tile (or scale) the windows on your desktop so that you can see what windows you have open and select a specific one. This also provides you with a snapshot of all applications open on your desktop. Pressing Ctrl+Alt+Up-arrow shrinks all windows and rearranges them on the screen so that they do not overlap. Selecting a window with the mouse causes all windows to return to their original size and position, with the selected window on top.

To change the keystrokes used to tile windows, click the box to the right of *Activate/deactivate when I type* until *New accelerator* appears. Then press the keystrokes you want to use. The new keystrokes appear in the box.

You can also choose to tile windows by moving the mouse pointer to the top left (default), top right, bottom left, or bottom right of the screen.

Figure 2-16 *Application Tiling*



Zoom

These options give you the ability to zoom in and out of areas on your screen, which significantly improves desktop accessibility for visually impaired users or for anyone who wants to see a part of the screen displayed in a larger size.

By default, pressing the Super key (the Windows key)+Button 3 zooms in on part of the desktop. If you have a two-button mouse, press the Super key, then press the left and right buttons simultaneously. You can move the mouse while holding those buttons down to see other parts of the screen. You can also press the Super key and use the scroll wheel on the mouse to manually zoom in and out of the desktop.

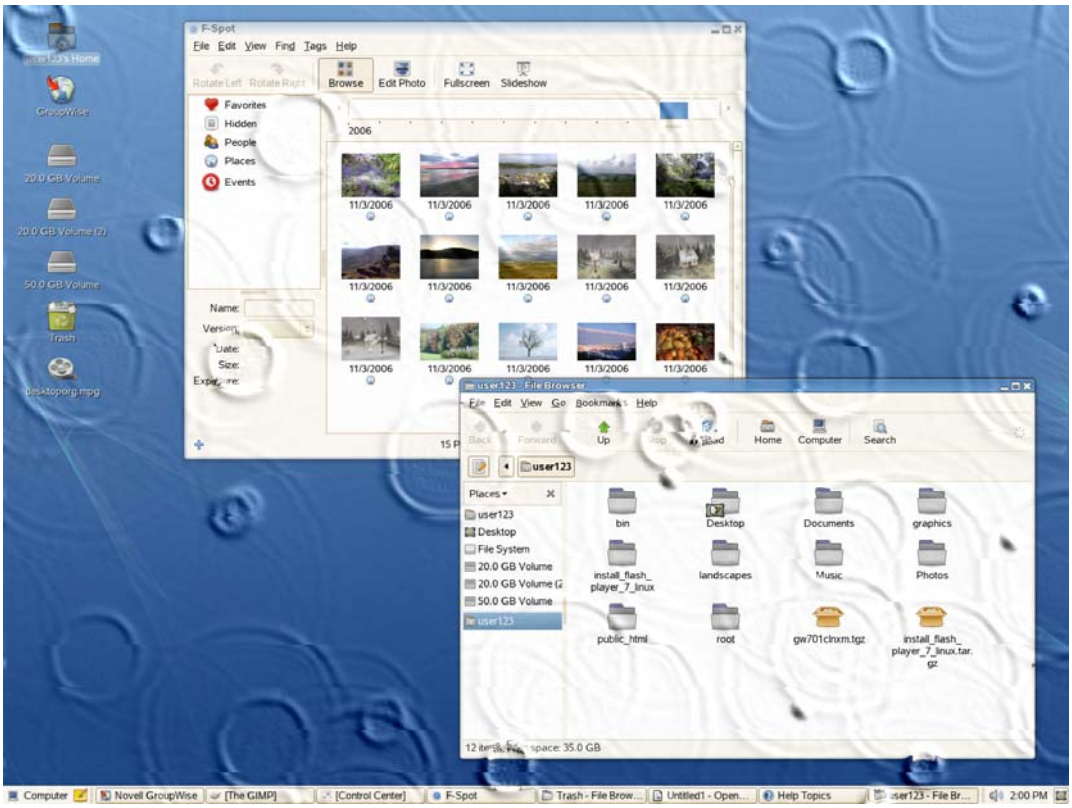
You can choose to deactivate any of these options, or to change the zoom keystrokes.

Water Effect

This option creates a ripple effect on your screen when you hold down the specified key or key combination (Ctrl+Alt+Super by default) and move the mouse pointer. You can also enable or disable a rain effect when you press Shift+F9. To change the keystrokes used to enable and disable the rain effect, click the box to the right of *Activate/deactivate rain when I type* until *New accelerator* appears. Then press the keystrokes you want to use. These new keystrokes will appear in the box.

Use the slider bar at the bottom of the tabbed window to specify the intensity of the rain effect.

Figure 2-17 *Water Effect*



Xgl Shortcuts

Table 2-9 contains a list of the default keystrokes and mouse movements you can use to perform desktop effects. To change any of these shortcuts, see "Modifying Desktop Effects" on page 70.

Table 2-9 *Desktop Effects Shortcuts*

Effect	Shortcut
Activate or deactivate rain effect	Shift+F9
Create ripples with the mouse pointer	Ctrl+Alt+Super key (Windows key) and move the mouse pointer
Panoramic view of all desktop cubes	Ctrl+Alt+Down-arrow (use the Left- and Right-arrows to scroll)
Rotate desktop cube	Ctrl+Alt+Left-arrow or Right-arrow or drag a window to the edge of the screen
Rotate desktop cube manually	Ctrl+Alt+left-click the desktop and drag the mouse pointer
Rotate desktop cube while keeping the current active window with you	Ctrl+Alt+Shift+Left-arrow or Right-arrow
Switch windows (thumbnail view)	Alt+Tab

Effect	Shortcut
Tile windows	Ctrl+Alt+Up-arrow or move the mouse pointer to the top-left corner of the screen
Wobbly window	Left-click the window and drag
Zoom once	Super key (Windows key)+Button 3
Zoom in manually	Super key (Windows key)+scroll wheel up
Zoom out manually	Super key (Windows key)+scroll wheel down

More Desktop Effects

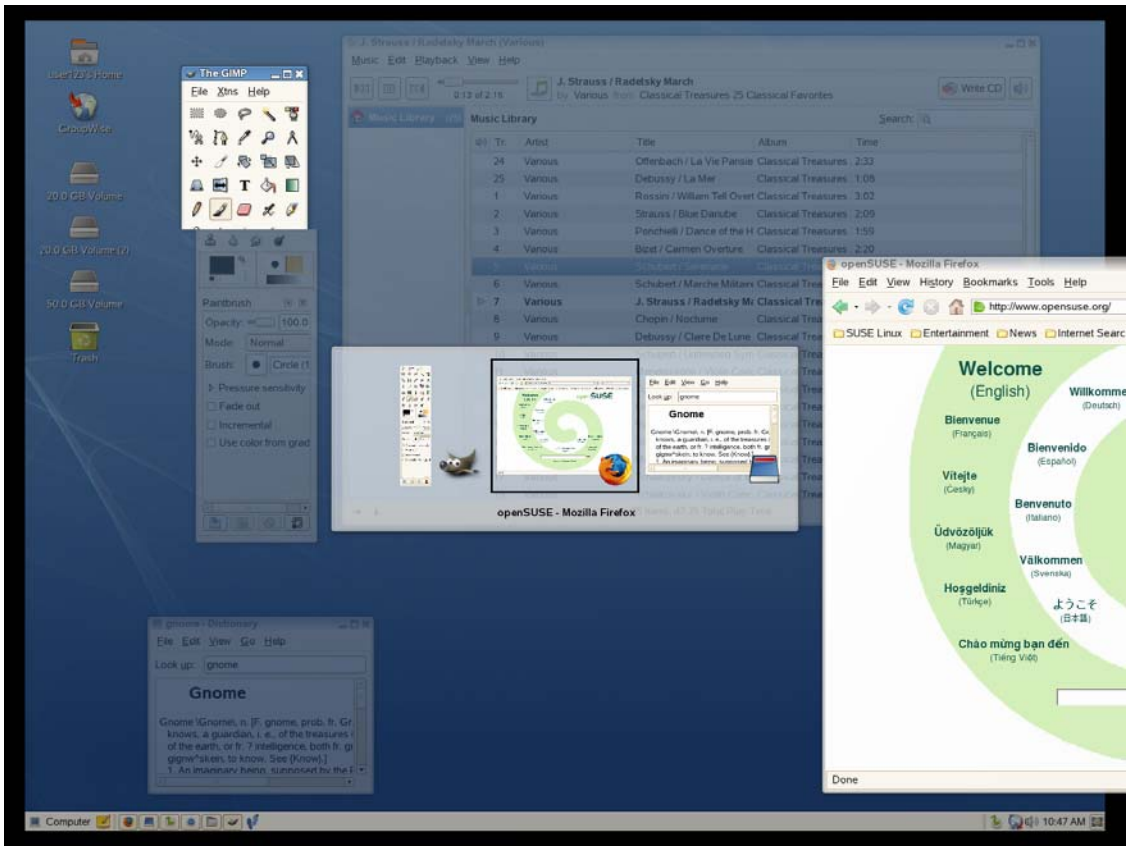
You can also do these things with Xgl:

- “Switching Tasks” on page 77
- “Unfolding the Cube” on page 78
- “Displaying a Skydome Image Behind the Cube” on page 78

Switching Tasks

Press Alt+Tab to display a thumbnail view of all windows open on your desktop. While holding the the Alt key down, press Tab to cycle through the list of windows. The currently highlighted window will appear in focus. Release the keys to access that window.

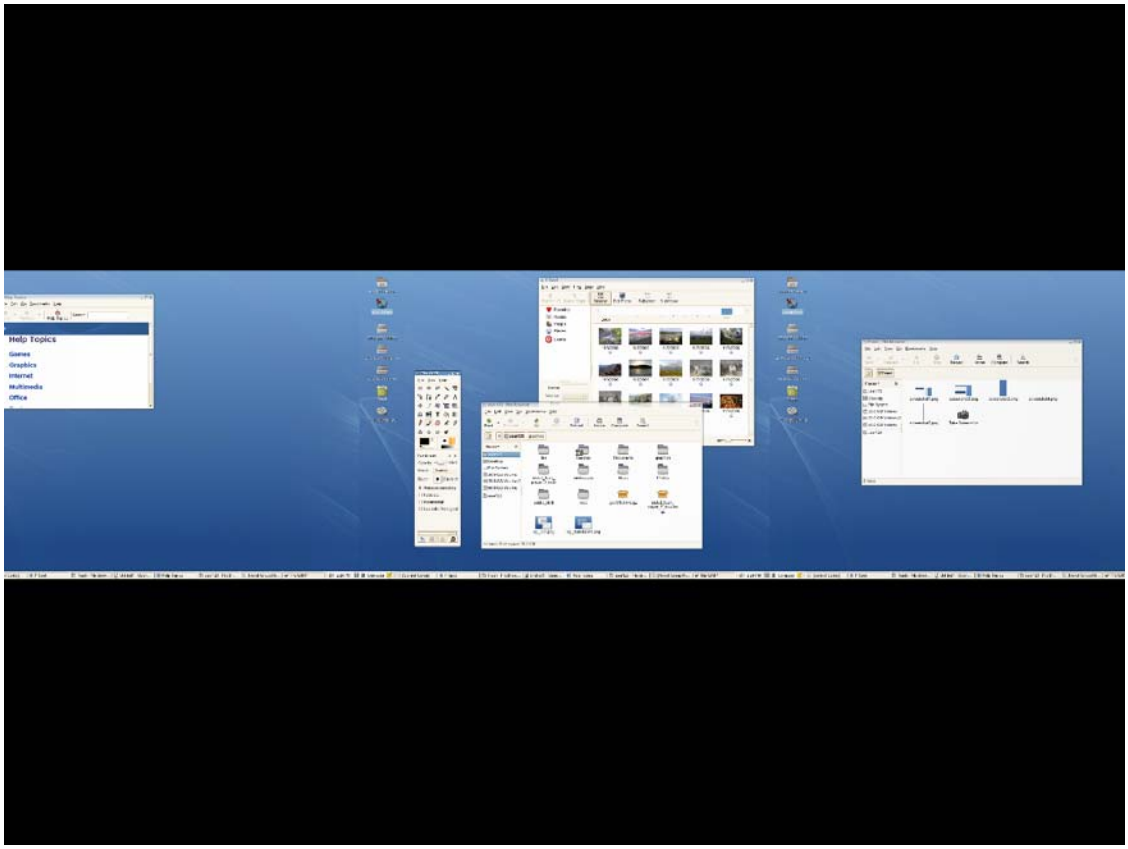
Figure 2-18 *Thumbnail View*



Unfolding the Cube

Press Ctrl+Alt+Down-arrow to unfold the desktop cube, opening a panoramic view of all your desktops. Your desktop cube is laid out like a filmstrip on your screen. You can use the Left-arrow and Right-arrow to select a different screen. This is similar to the switcher feature (Alt+Tab), but lets you view a thumbnail of your entire desktop instead of only your active windows.

Figure 2-19 *Panoramic View of All Desktop Cubes*



Displaying a Skydome Image Behind the Cube

You can add background wallpaper (also known as a skydome image) that is visible when you rotate or unfold the desktop cube.

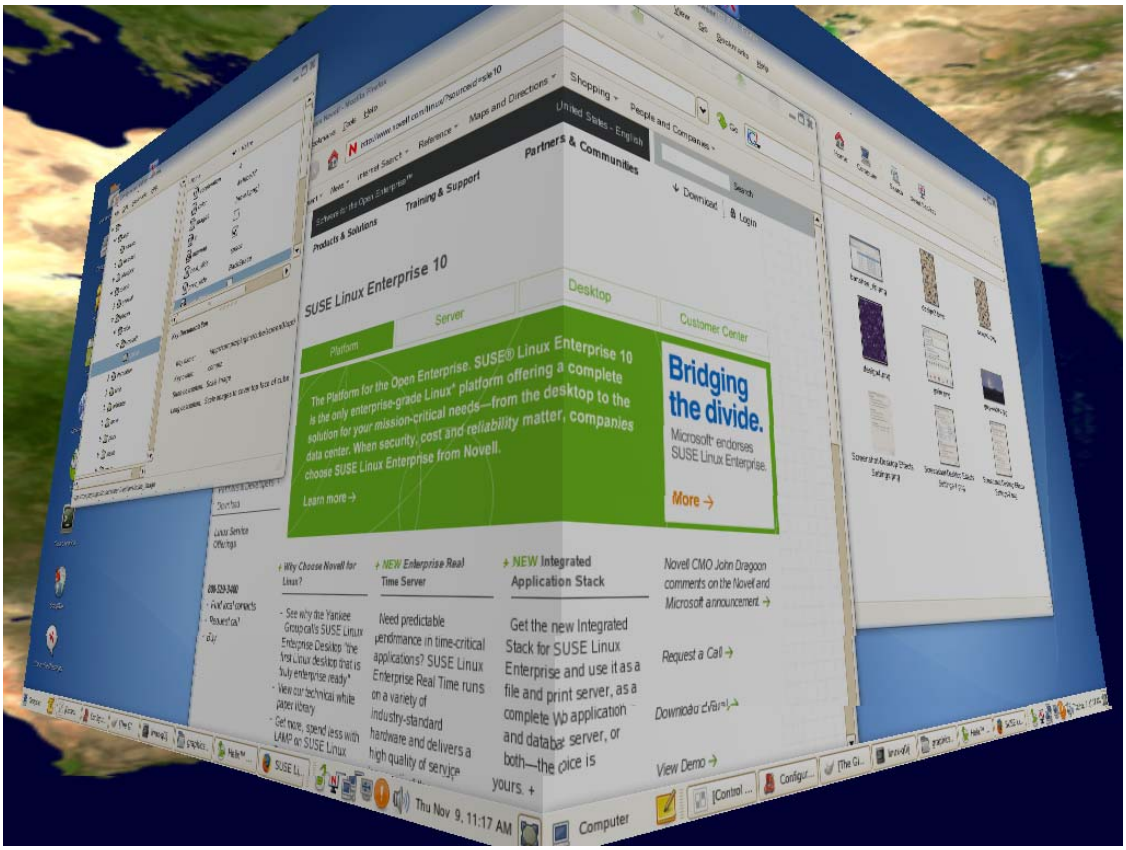
1. Click *Computer* > *More Applications* > *System* > *GNOME Configuration Editor,* or press Alt+F2 and enter `gconf-editor`.
2. Navigate to the `apps/compiz/plugins/cube/screen0/options` registry folder.
3. Scroll down the list on the right side of the Configuration Editor and select *skydome*.
4. Double-click *skydome_image*, then specify the path to the skydome image you want to display behind the cube.

   Skydome images must be in `.png` format. The suggested image sizes for skydome images are 1024 x 1024, 1024 x 2048, 1024 x 4096, 2048 x 1024, 2048 x 2048, 2048 x 4096, 4096 x 1024, 4096 x 2048, and 4096 x 4096.
5. (Optional) Select *skydome_animated* to make it look like you are moving around the cube when you use your mouse to rotate the cube.

6 Click *OK*.

7 Click *File* > *Quit* to close the Configuration Editor.

Figure 2-20 *Skydome Image*



2.2.3 Configuring Fonts

Use the Font Preferences dialog to select the fonts to use in your applications, windows, terminals, and desktop. To open the Font Preferences dialog, click *Computer* > *Control Center* > *Look and Feel* > *Fonts*.

Figure 2-21 *Font Preferences Dialog*

The upper part of the dialog shows the fonts selected for applications, the desktop, window titles, and a fixed-width font for terminals. Click one of the buttons to open a selection dialog where you can set the font family, style, and size.

To specify how to render fonts on your screen, select one of the following options:

- **Monochrome:** Renders fonts in black and white only. The edges of characters might appear jagged in some cases because the characters are not antialiased. *Antialiasing* is an effect that is applied to the edges of characters to make the characters look smoother.
- **Best Shapes:** Antialiases fonts where possible. Use this option for standard Cathode Ray Tube (CRT) monitors.
- **Best Contrast:** Adjusts fonts to give the sharpest possible contrast and antialiases fonts so that characters have smooth edges. This option might enhance the accessibility of the GNOME Desktop to users with visual impairments.
- **Subpixel Smoothing (LCDs):** Uses techniques that exploit the shape of individual Liquid Crystal Display (LCD) pixels to render fonts smoothly. Use this option for LCD or flat-screen displays.

Click *Details* to specify further details of how to render fonts on your screen:

- **Resolution (Dots Per Inch):** Use the spin box to specify the resolution to use when your screen renders fonts.
- **Smoothing:** Select one of the options to specify how to antialias fonts.
- **Hinting:** Select one of the options to specify how to apply hinting to improves the quality of fonts at small sizes and at low screen resolutions.
- **Subpixel Order:** Select one of the options to specify the subpixel color order for your fonts. Use this option for LCD or flat-screen displays.

2.2.4 Configuring Menus and Toolbars

You can configure the appearance and behavior of menus and toolbars. Click *Computer* > *Control Center* > *Look and Feel* > *Menus & Toolbars*.

Showing Icons in Menus

If you want icons to appear in menus, select *Show icons in menus*. Not all menu items have icons.

Defining New Keyboard Shortcuts

If you want to be able to define new keyboard shortcuts for menu items, select *Editable menu accelerators*. When this option is enabled, you can change an application shortcut key by placing the mouse pointer over the menu item you want to change, then pressing the new key combination. To remove a shortcut key combination, place the mouse pointer over the menu item, then press Backspace or Delete.

IMPORTANT: If you assign a new keyboard combination, you are not warned if you select a combination that was previously assigned to something else. The previous assignment is removed and replaced by the new one. There is no automatic way to restore the original, default keyboard shortcut for a command. You must manually reassign the keyboard shortcut.

This feature does not maintain shortcuts that are normally assigned to all applications, such as Ctrl+C for copy. This might lead to inconsistencies in your GNOME applications.

Making Toolbars Detachable

If you want to be able to move toolbars to other locations on the screen, click *Detachable toolbars*. When this option is enabled, a handle displays on the left side of the toolbars in your applications. To move a toolbar, click and hold on the handle, then drag the toolbar to the new location.

Configuring Placement of Toolbar Button Labels

Select one of the following options to specify how toolbar button labels display in your GNOME-compliant applications:

Text below icons: Displays icon labels below the icons for each button.

Text beside icons: Displays icons on the toolbar, with text beside the most important icons.

Icons only: Displays icons only, without any text labels.

Text only: Displays text labels on each button, without icons.

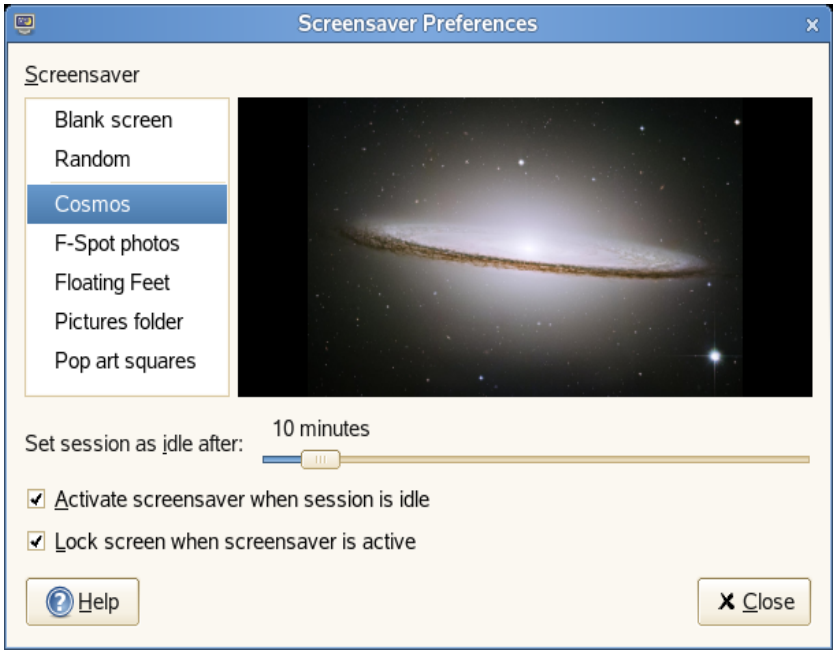
A preview of the selected option appears in the *Menu and Toolbar Preferences* dialog.

2.2.5 Configuring the Screen Saver

A screen saver is a program that blanks the screen or displays graphics when the computer is not used for a specified amount of time. Originally, screen savers protected monitors from having images burned into them. Now they are used primarily for entertainment or security.

To configure a screen saver, click *Computer* > *Control Center* > *Look and Feel* > *Screensaver*.

Figure 2-22 *Screensaver Preferences Dialog*



You can select from *Random* (random selection of screen savers from a custom-defined list), *Blank Screen*, or a selection of installed screen savers.

Select a screen saver from the list to choose it. The currently selected screen saver is displayed in the small preview window. Specify the amount of time that the screen is to be idle before the screen saver is activated, and whether the screen is locked when the screen saver is activated.

2.2.6 Choosing a Theme

A theme is a group of coordinated settings that specifies the visual appearance of a part of the desktop. You can choose themes to change the appearance of the desktop. Use the Theme Preferences tool to select from a list of preinstalled themes. The list of available themes includes several themes for users with accessibility requirements.

To choose a theme, click *Computer* > *Control Center* > *Look and Feel* > *Theme*.

A theme contains settings that affect different parts of the desktop, as follows:

- Controls

  The controls setting for a theme determines the visual appearance of windows, panels, and applets. It also determines the visual appearance of the GNOME-compliant interface items that appear on windows, panels, and applets, such as menus, icons, and buttons. Some of the controls setting options that are available are designed for special accessibility needs. You can select an option for the controls setting in the Controls tabbed page of the Theme Details tool.

- Window Border

  The window border setting for a theme determines the appearance of the frames around windows only. You can select an option for the window frame setting in the Window Border tabbed page of the Theme Details tool.

- Icons

  The icon setting for a theme determines the appearance of the icons on panels and the desktop background. You can select an option for the icon setting in the Icons tabbed page of the Theme Details tool.

The color settings for the desktop and applications are controlled using themes. You can choose from a variety of preinstalled themes. Selecting a style from the list overview applies it automatically. *Details* opens another dialog where you can customize the style of single desktop elements, like window content, window borders, and icons. Making changes and leaving the dialog by clicking *Close* switches the theme to Custom Theme. Click *Save Theme* to save your modified theme under a custom name. The Internet and other sources provide many additional themes for GNOME as `.tar.gz` files. Install these with the Install theme.

Creating a Custom Theme

The themes that are listed in the Theme Preferences tool are different combinations of controls options, window frame options, and icon options. You can create a custom theme that uses different combinations of options.

1. Click > *Computer* > *Control Center* > *Look and Feel* > *Theme*.
2. Select a theme from the list of themes, then click *Theme Details*.
3. Select the controls option that you want to use in the custom theme from the list in the Controls tabbed page.
4. Click the *Window Border* tab, then select the window frame option that you want to use in the custom theme.
5. Click the *Icons* tab, then select the icons option that you want to use in the custom theme.
6. Click *Close* > *Save Theme*.

   A Save Theme to Disk dialog is displayed.
7. Type a name and a short description for the custom theme in the dialog, then click *Save*.

   The custom theme now appears in your list of available themes.

Installing a New Theme

You can add a theme to the list of available themes. The new theme must be an archive file that is tarred and zipped (a `.tar.gz` file).

1. Click *Computer* > *Control Center* > *Look and Feel* > *Theme*.
2. Click *Install Theme*.
3. Specify the location of the theme archive file in the *Location* field, then click *OK*.

   You can also click *Browse* to browse for the file.
4. Click *Install* to install the new theme.

Deleting a Theme

You can delete controls options, window frame options, or icons options.

1. Click *Computer* > *Control Center* > *Look and Feel* > *Theme*.
2. Click *Theme Details*, then click the tab for the type of option you want to delete.

3 Click *Go To Theme Folder*.

A File Manager window opens on the default option folder.

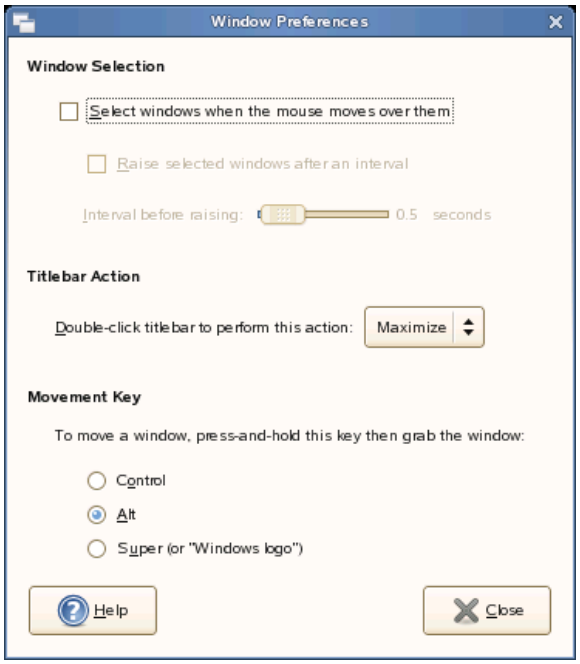
4 Use the File Manager window to delete the option.

2.2.7 Customizing Window Behavior

Use the Window Preferences tool to customize window behavior for the desktop. You can determine how a window reacts to contact with the mouse pointer or to double-clicks on its titlebar, and you can define which key to hold for moving an application window.

To customize window behavior, click *Computer* > *Control Center* > *Look and Feel* > *Windows*.

Figure 2-23 *Window Preferences Dialog*



When several application windows populate the desktop, the active one by default is the one last clicked. Change this behavior by activating *Select Windows When the Mouse Moves over Them*. If desired, activate *Raise Selected Window after an Interval* and adjust the latency time with the slider. This raises a windows a short time after the window receives focus.

Application windows can be shaded (rolled up) by double-clicking the title bar, leaving only the title bar visible. This saves space on the desktop and is the default behavior. It is also possible to set windows to maximize when the title bar is double-clicked.

Using the radio buttons, select a modifier key to press for moving a window (Ctrl, Alt, Hyper, or the Windows logo key).

2.3 Personal

Personal settings include the following:

- Section 2.3.1, “Configuring Keyboard Accessibility Settings,” on page 85

- Section 2.3.2, “Configuring Assistive Technology Support,” on page 86
- Section 2.3.3, “Changing Your Password,” on page 87
- Section 2.3.4, “Managing Novell CASA,” on page 88
- Section 2.3.5, “Customizing Keyboard Shortcuts,” on page 88

2.3.1 Configuring Keyboard Accessibility Settings

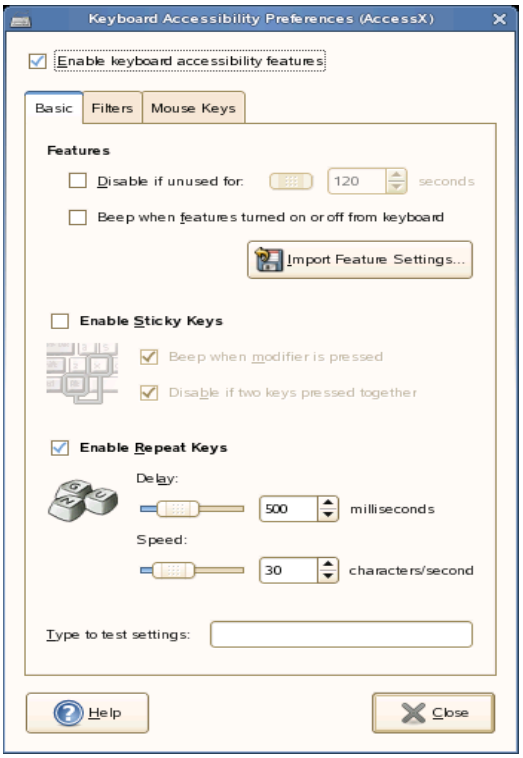
GNOME provides keyboard settings designed to help users with motion impairments use the GNOME desktop. Some of the available settings include:

- How long a key is pressed and held before being recognized as valid input
- Whether the keyboard can be used as a mouse
- Whether key combinations that use Alt, Control, and Shift can be duplicated with “sticky keys”

To configure keyboard accessibility settings, click *Computer* > *Control Center* > *Personal* > *Accessibility*.

The module consists of the three tabs: *Basic*, *Filters*, and *Mouse Keys*. Before modifying settings, activate *Enable Keyboard Accessibility Features*.

Figure 2-24 *Keyboard Accessibility Preferences Dialog*



Features (Basic Tab)

The keyboard accessibility functions can be deactivated automatically after a certain time. Set an appropriate time limit (measured in seconds) with the slider. The system can additionally provide audible feedback when the keyboard accessibility functions are activated and deactivated.

Enable Sticky Keys (Basic Tab)

Some keyboard shortcuts require that one key (a modifier key) is kept pressed constantly (this applies to Alt, Ctrl, and Shift) while the rest of the shortcut is typed. When sticky keys are used, the system regards those keys as staying pressed after being pressed once. For an audible feedback generated each time a modifier key is pressed, activate *Beep* when the modifier is pressed. If *Disable If Two Keys Pressed Together* is selected, the keys do not "stick" anymore when two keys are pressed simultaneously. The system then assumes that the keyboard shortcut has been completely entered.

Enable Repeat Keys (Basic Tab)

Activate *Repeat Keys* to make settings with sliders for *Delay* and *Speed*. This determines how long a key must be pressed for the automatic keyboard repeat function to be activated and at what speed the characters are then typed.

Test the effect of the settings in the field at the bottom of the dialog. Select parameters that reflect your normal typing habits.

Enable Slow Keys (Filters Tab)

To prevent accidental typing, set a minimum time limit that a key must be pressed and held before it is recognized as valid input by the system. Also determine whether audible feedback should be provided for keypress events, accepted keypresses, and the rejection of a keypress.

Enable Bounce Keys (Filters Tab)

To prevent double typing, set a minimum time limit for accepting two subsequent keypress events of the same key as the input of two individual characters. If desired, activate audible feedback upon rejection of a keypress event.

Toggle Keys (Filters Tab)

You can request audible feedback from the system when a keycap modifier key is pressed.

Mouse Keys Tab

Activates the keyboard mouse; the mouse pointer is controlled with the arrow keys of the number pad. Use the sliders to set the maximum speed of the mouse pointer, the acceleration time until the maximum speed is reached, and the latency between the pressing of a key and the cursor movement.

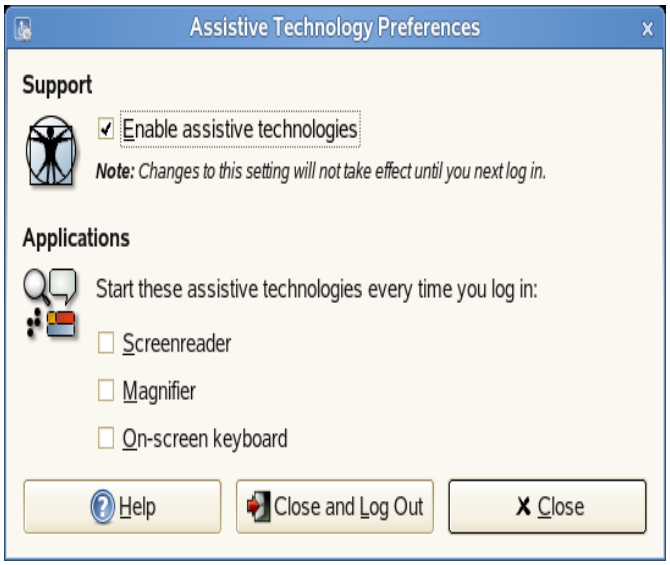
2.3.2 Configuring Assistive Technology Support

Several assistive technologies are included for users with special needs:

- Screen reader
- Screen magnifier
- On-screen keyboard

To configure assistive technology options, click *Computer* > *Control Center* > *Personal* > *Assistive Technology Preferences*. To enable the technologies, first select *Enable Assistive Technologies* and then select the technologies you want to enable every time you log in.

Figure 2-25 *Assistive Technology Preferences Dialog*



The gok package must be installed in order to get on-screen keyboard support, and the gnopernicus and gnome-mag packages must be installed in order to get screenreading and magnifying capabilities.

If these packages are not installed on your system (they are installed by default during installation), install them with the following procedure:

1. Click *Computer* > *More Applications* > *System* > *YaST*.
2. Type the root password, then click *OK*.
3. Click *Software* > *Install and Remove Software*.
4. Select *Selection* from the *Filter* drop-down menu, then select *Accessibility* from the *Selection* list.
5. Select gok, gnopernicus, and gnome-mag from the *Package* list
6. Click *Accept*.
7. Insert the CD you are prompted for, then click *OK*.
8. Click *Cancel* > *Close* after the package installation is complete.

2.3.3 Changing Your Password

For security reasons, it is a good idea to change your password from time to time. To change your password:

1. Click *Computer* > *Control Center* > *Personal* > *Change Password*.
2. Type your old (current) password.
3. Type your new password.
4. Confirm your new password by typing it again, then click *OK*.

2.3.4 Managing Novell CASA

Novell CASA Manager provides an interface for viewing secrets stored on your computer. Secrets include such items as:

- Passwords
- Wireless credentials
- Certificates
- Credentials for logging in to another computer

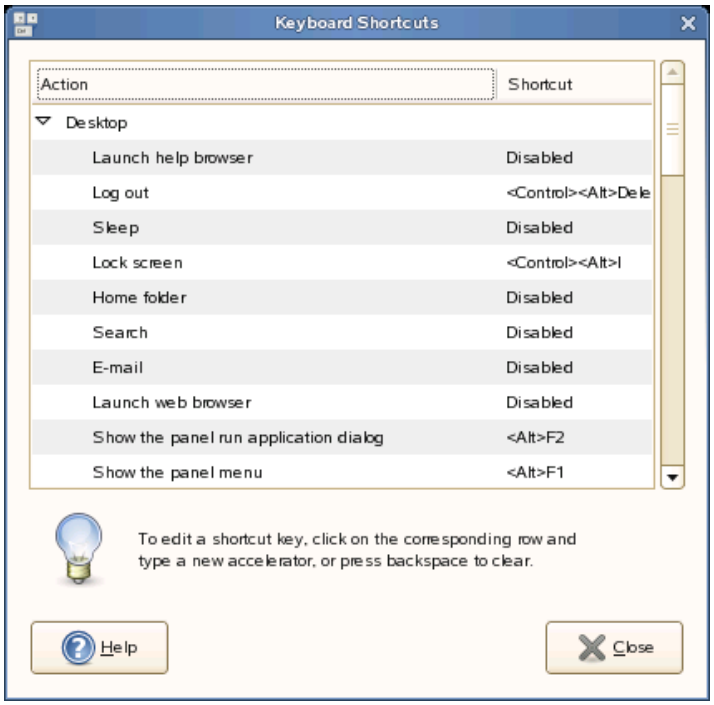
Most users should never use Novell CASA Manager because secrets are managed by the applications that create them.

2.3.5 Customizing Keyboard Shortcuts

A keyboard shortcut is a key or combination of keys that provides an alternative to standard ways of performing an action. You can customize the keyboard shortcuts for a number of actions.

To open the Keyboard Shortcuts tool, click *Computer* > *Control Center* > *Personal* > *Shortcuts*.

Figure 2-26 *Keyboard Shortcuts Dialog*



To change the shortcut keys for an action, select the action and then press the keys you want to associate with the action. To disable the shortcut keys for an action, click the shortcut for the action, then press Backspace.

2.4 System

System settings include the following:

- Section 2.4.1, “Configuring Date and Time,” on page 89
- Section 2.4.2, “Configuring Streaming Audio and Video,” on page 89
- Section 2.4.3, “Configuring Language Settings,” on page 89
- Section 2.4.4, “Configuring Network Proxies,” on page 90
- Section 2.4.5, “Configuring Power Management,” on page 91
- Section 2.4.6, “Setting Preferred Applications,” on page 92
- Section 2.4.7, “Setting Session Sharing Preferences,” on page 93
- Section 2.4.8, “Configuring Search with Beagle Settings,” on page 94
- Section 2.4.9, “Managing Sessions,” on page 94
- Section 2.4.10, “Setting Sound Preferences,” on page 97
- Section 2.4.11, “Managing Users and Groups,” on page 100
- Section 2.4.12, “Configuring Administrative Settings with YaST,” on page 101

2.4.1 Configuring Date and Time

To change your date and time configuration, for example to change your time zone or the way the date and time are displayed, click *Computer* > *Control Center* > *System* > *Date and Time*. This opens the YaST Date and Time module, which requires root privileges. Enter the root password and follow the instructions on the YaST pages.

2.4.2 Configuring Streaming Audio and Video

The GStreamer Properties application lets you set which audio and video plug-ins you want to use for streaming multimedia. To open this application, click *Computer* > *Control Center* > *System* > *GStreamer Properties*.

In most cases, you should use the default selections. However, if you want to select other plug-ins, select the plug-in you want from the menus. The *Audio* tab lists the plug-ins for audio input and output. The *Video* tab lists the video plug-ins.

Click *Close* when you are finished. The system is immediately configured to use the selected plug-ins.

2.4.3 Configuring Language Settings

SUSE Linux Enterprise Desktop can be configured to use any of many languages. The language setting determines the language of dialogs and menus, and can also determine the keyboard and clock layout.

You can set the following language settings:

- Primary language
- Whether the keyboard language setting should depend on the primary language

- Whether the time zone should depend on the primary language
- Secondary languages

NOTE: You must have administrator (root) privileges to configure language settings.

To configure your language settings:

1. Click *Computer* > *Control Center* > *System* > *Language*.
2. (Conditional) If you are not logged in as root or a user with administrator privileges, enter the root password.

   If you do not know the root password, contact your system administrator. You cannot continue without the root password.
3. Specify the primary language, whether you want to adapt the keyboard layout or time zone to the primary language, and any secondary languages you need to support on the computer.
4. Click *Accept*.

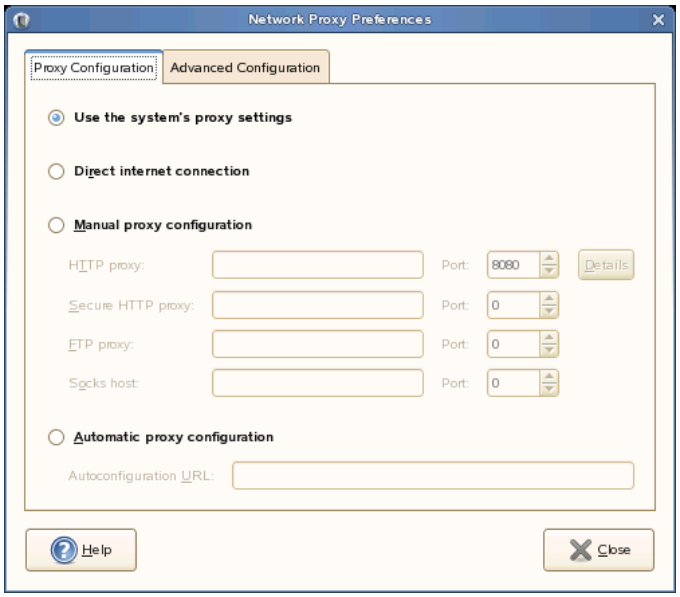
   The language configuration settings are written to several configuration files. This process can take a few minutes. The new settings take effect immediately after they are written to the configuration files.

2.4.4 Configuring Network Proxies

The Network Proxy Configuration tool lets you configure how your system connects to the Internet. You can configure the desktop to connect to a proxy server and specify the details of the server. A proxy server is a server that intercepts requests to another server and fulfills the request itself, if it can. You can specify the Domain Name Service (DNS) name or the Internet Protocol (IP) address of the proxy server. A DNS name is a unique alphabetic identifier for a computer on a network. An IP address is a unique numeric identifier for a computer on a network.

Click *Computer* > *Control Center* > *System* > *Network Proxies*.

Figure 2-27 *Network Proxy Configuration Dialog*



The following table lists the Internet connection options that you can modify.

Table 2-10 *Internet Connection Options*

Option	Description
Direct Internet connection	Connects directly to the Internet, without a proxy server.
Manual proxy configuration	Connects to the Internet through a proxy server and lets you configure the proxy server manually.
HTTP proxy	The DNS name or IP address of the proxy server to use when you request a HTTP service. Specify the port number of the HTTP service on the proxy server in the Port box.
Secure HTTP proxy	The DNS name or IP address of the proxy server to use when you request a Secure HTTP service. Specify the port number of the Secure HTTP service on the proxy server in the Port box.
FTP proxy	The DNS name or IP address of the proxy server to use when you request an FTP service. Specify the port number of the FTP service on the proxy server in the Port box.
Socks host	The DNS name or IP address of the Socks host to use. Specify the port number for the Socks protocol on the proxy server in the Port spin box.
Automatic proxy configuration	Connects to the Internet through a proxy server and lets you configure the proxy server automatically.
Autoconfiguration URL	The URL that contains the information required to configure the proxy server automatically.

2.4.5 Configuring Power Management

The Power Management module lets you manage your system's power-saving options. It is especially useful for extending the life of a laptop's battery charge. However, several options also help to save electricity when you are using a computer that is plugged in to an electricity source.

Click *Computer > Control Center > System > Power Management*.

Specifying Sleep Mode Times

Sleep mode shuts down the computer when it is unused for a specified amount of time. Whether you are using battery or AC power, you can specify the amount of time that the computer remains unused before it is put to sleep.You can also put the computer's display to sleep without shutting down the computer, saving the power required by the display.

Sleep mode is especially important when the computer is operating under battery power. Both the screen and the computer draw power from the battery, so you can save a significant amount of battery power by shutting down one or both. It is common to put the display to sleep after a shorter period of time. Then, if the computer remains unused for an additional amount of time, it is also put to sleep.

To specify your computer's sleep settings:

1. Click *Computer* > *Control Center* > *System* > *Power Management*.
2. Click the tab for the type of power you are using.

   If your computer uses AC power, click *Running on AC*.

   If your computer runs on battery power, click *Running on Battery*.

   If your computer operates on both AC and battery power, you can configure the settings on both tabs. The settings you choose are in effect no matter which power source you use.
3. Use the sliders to set the amount of inactive time that passes before the display and computer go into sleep mode.

   When the display is in sleep mode, the computer continues to run. When the computer is in sleep mode, power to the display and hard disk is shut off and the computer uses only the power needed to maintain the contents of RAM.
4. Click *Close*.

   The options you selected go into effect immediately.

Setting General Power Options

To set general power options, click *Computer* > *Control Center* > *System* > *Power Management*, then click the *General* tab. On this tab, you can choose:

- The sleep type to use when the computer is inactive
- How and when the *Power* icon displays

2.4.6 Setting Preferred Applications

The Preferred Applications module allows you to specify which applications to use for various common tasks:

To change any of these settings:

1. Click *Computer* > *Control Center* > *System* > *Preferred Applications*.
2. Click the tab for the type of application you want to set.

   The following list shows the options and default settings.

   - Web browser

     Default: Firefox
   - Mail reader

     Default: Evolution
   - FTP

     Default: Firefox
   - News

     Default: Pan
   - Terminal

     GNOME Terminal

3 Select one of the available from the applications from the *Choose* menu or enter the command used to start the application.

4 Click *Close*.

The changes take effect immediately.

2.4.7 Setting Session Sharing Preferences

The Remote Desktop Preference dialog box lets you share a GNOME Desktop session between multiple users and set session-sharing preferences. These preferences can have a direct impact on the security of your system.

1 Click *Computer* > *Control Center* > *System* > *Remote Desktop*.

Remote Desktop Preferences
Sharing
Allow other users to view your desktop
Allow other users to control your desktop
Users can view your desktop using this command:
vncviewer linux-916a.site:0
Security
When a user tries to view or control your desktop:
Ask you for confirmation
Require the user to enter this password:
Password:
Help
Close

2 Choose from the following options:

Option	Description
Allow other users to view your desktop	Lets remote users view your session. All keyboard, pointer, and clipboard events from the remote user are ignored.
Allow other users to control your desktop	Lets other users access and control your session from a remote location.
Users can view your desktop using this command	Click the highlighted text to system address by e-mail to a remote user.

Option	Description
When a user tries to view or control your desktop	Select the following security considerations when a remote user tries to view or control your session: **Ask you for confirmation:** Select this option if you want remote users to ask you for confirmation when they want to share your session. This option lets you be aware of other users who connect to your session. You can also decide what time is suitable for the remote user to connect to your session. **Require the user to enter this password:** Select this option to authenticate the remote user if authentication is used. This option provides an extra level of security.
Password	Type the password that the remote user must enter to view or control your session.

3 Click *Close*.

2.4.8 Configuring Search with Beagle Settings

Beagle is the search engine used on the GNOME Desktop. By default, Beagle is configured to start automatically and index your home directory. If you want to change these settings, specify the number of results displayed after a search or change the Beagle privacy settings, click *Computer* > *Control Center* > *System* > *Search Settings*.

For more information, see "Setting Search Preferences" on page 175 and "Preventing Files and Directories from Being Indexed" on page 177.

2.4.9 Managing Sessions

This module lets you manage your sessions. A session occurs between the time that you log in to the desktop environment and the time that you log out. You can set session preferences and specify which applications to start when you begin a session. You can configure sessions to save the state of applications and then restore the state when you start another session.

You can also use this preference tool to manage multiple sessions. For example, you might have a mobile session which starts applications you use most frequently when traveling, a demo session that starts applications used to present a demonstration or slide show to a customer, and a work session that uses a different set of applications when you are working in the office.

Click *Computer* > *Control Center* > *System* > *Sessions*.

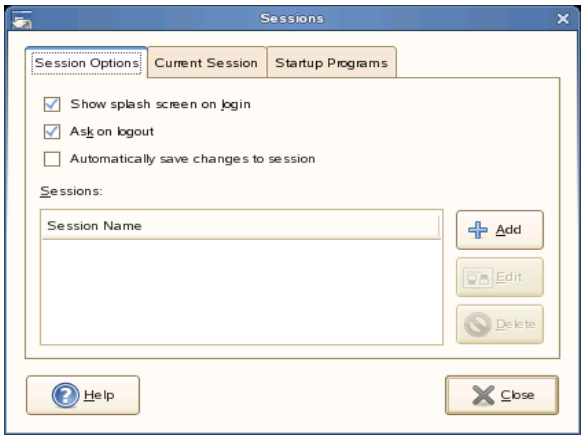
This module consists of three tabbed pages:

- **Session Options:** Lets you manage multiple sessions and set preferences for the current session.
- **Current Session:** Lets you specify startup order values and select restart styles for the session-managed applications in your current session.
- **Startup Programs:** Lets you specify non-session-managed startup applications, which start automatically when you start a session.

Setting Session Preferences

Use the Session Options tabbed page to manage multiple sessions and set preferences for the current session.

Figure 2-28 *Sessions Dialog—Session Options Page*



The following table lists the session options that you can modify.

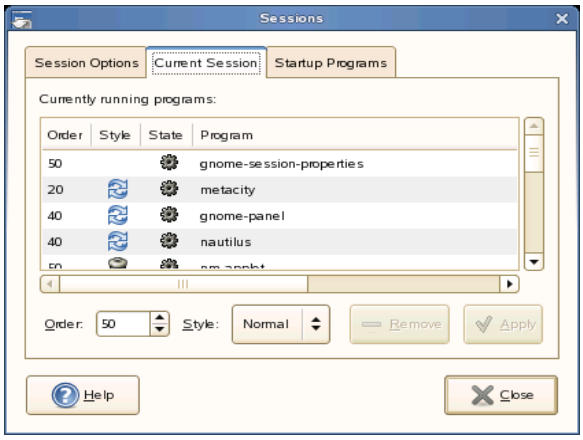
Table 2-11 *Session Preferences for Current Session*

Option	Description
Show Splash Screen on Login	Displays a splash screen when you start a session.
Ask on Logout	Displays a confirmation dialog when you end a session.
Automatically Save Changes to Session	Automatically saves the current state of your session. The session manager saves the session-managed applications that are open and the settings associated with the session-managed applications. The next time you start a session, the applications start automatically with the saved settings. If you do not select this option, the Logout Confirmation dialog displays a *Save Current Setup* option when you end your session.
Sessions	Lets you manage multiple sessions in the desktop, as follows: ◆ To create a new session, click *Add*. The Add a New Session dialog is displayed, letting you specify a name for your session. ◆ To change the name of a session, select the session and then click `Edit`. The Edit Session Name dialog is displayed, letting you specify a new name for your session. ◆ To delete a session, select the session and then click *Delete*.

Setting Session Properties

Use the Current Session tabbed page to specify startup order values and to choose restart styles for the session-managed applications in your current session.

Figure 2-29 *Sessions Dialog—Current Session Page*



The following table lists the session properties that you can configure.

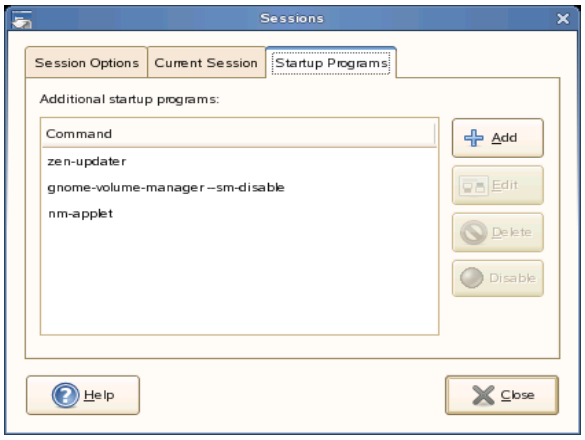
Table 2-12 *Session Properties for Session-Managed Applications*

Option	Description
Order	Specifies the order in which the session manager starts session-managed startup applications. The session manager starts applications with lower order values first. The default value is 50. To set the startup order of an application, select the application in the table. Use the *Order* box to specify the startup order value.
Style	Determines the restart style of an application. To select a restart style for an application, select the application in the table and then select one of the following styles: ◆ **Normal:** Starts automatically when you start a session. Use the `kill` command to terminate applications with this restart style during a session. ◆ **Restart:** Restarts automatically when you close or terminate the application. Select this style for an application if it must run continuously during your session. To terminate an application with this restart style, select the application in the table and then click *Remove*. ◆ **Trash:** Does not start when you start a session. ◆ **Settings:** Starts automatically when you start a session. Applications with this style usually have a low startup order and store your configuration settings for GNOME and session-managed applications.
Remove	Deletes the selected application from the list. The application is removed from the session manager and closed. Applications that you delete are not started the next time you start a session.
Apply	Applies changes made to the startup order and the restart style.

Configuring Startup Applications

Use the Startup Programs tabbed page to specify non-session-managed startup applications.

Figure 2-30 *Sessions Dialog—Startup Programs Page*



Startup applications are applications that start automatically when you begin a session. You specify the commands that run these applications and the commands execute automatically when you log in.

You can also start session-managed applications automatically. For more information, see "Setting Session Preferences" on page 95.

To add a startup application, click *Add*. The Add Startup Program dialog is displayed. Specify the command to start the application in the *Startup Command* field. If you specify more than one startup application, use the *Order* box to specify the startup order of the each application.

To edit a startup application, select the startup application and then click *Edit*. The Edit Startup Program dialog is displayed. Modify the command and the startup order for the startup application.

To delete a startup application, select the startup application and then click *Delete*.

To disable a startup application, select the startup application and then click *Disable*.

2.4.10 Setting Sound Preferences

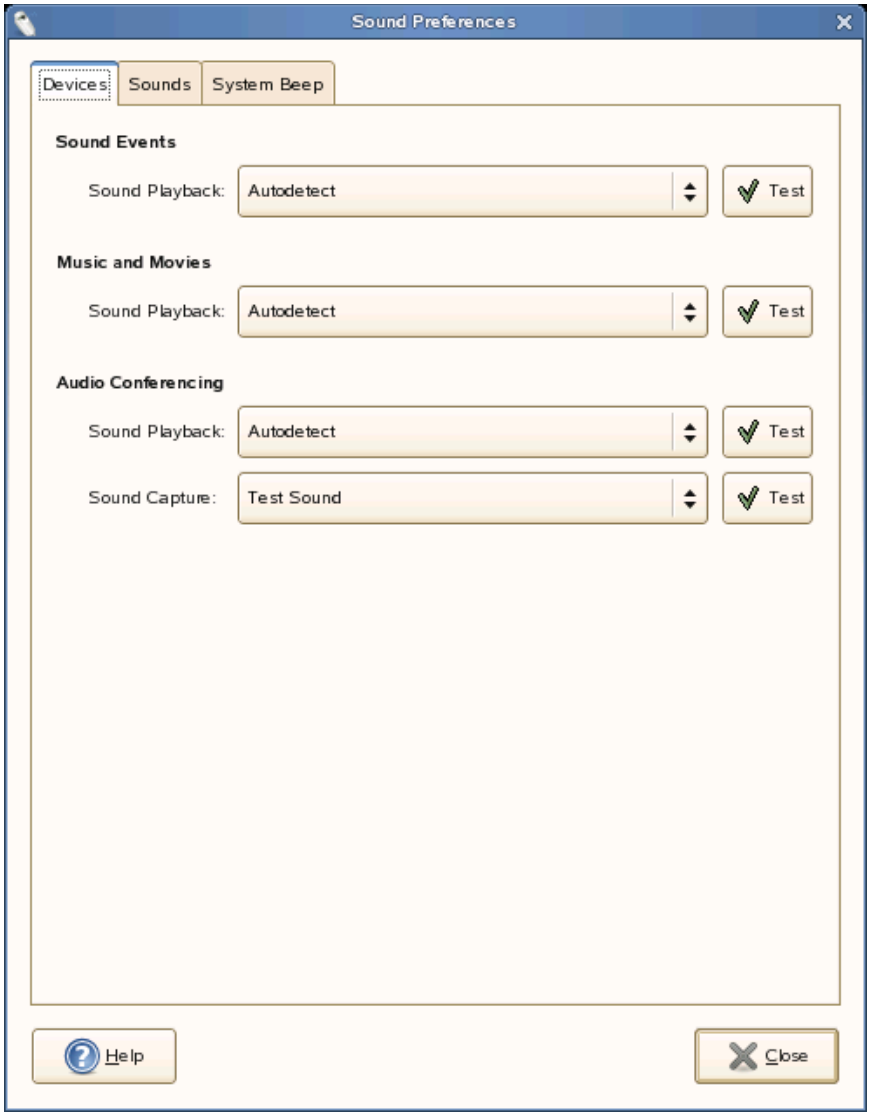
The Sound Preferences tool lets you control when the sound server starts. You can also specify which sounds to play when particular events occur.

Click *Computer* > *Control Center* > *System* > *Sound* to open the Sound Preferences tool.

Setting Sound Devices

Use the *Devices* tab to configure the application to use for various types of sounds.

Figure 2-31 *Sound Preferences Dialog—Devices Page*

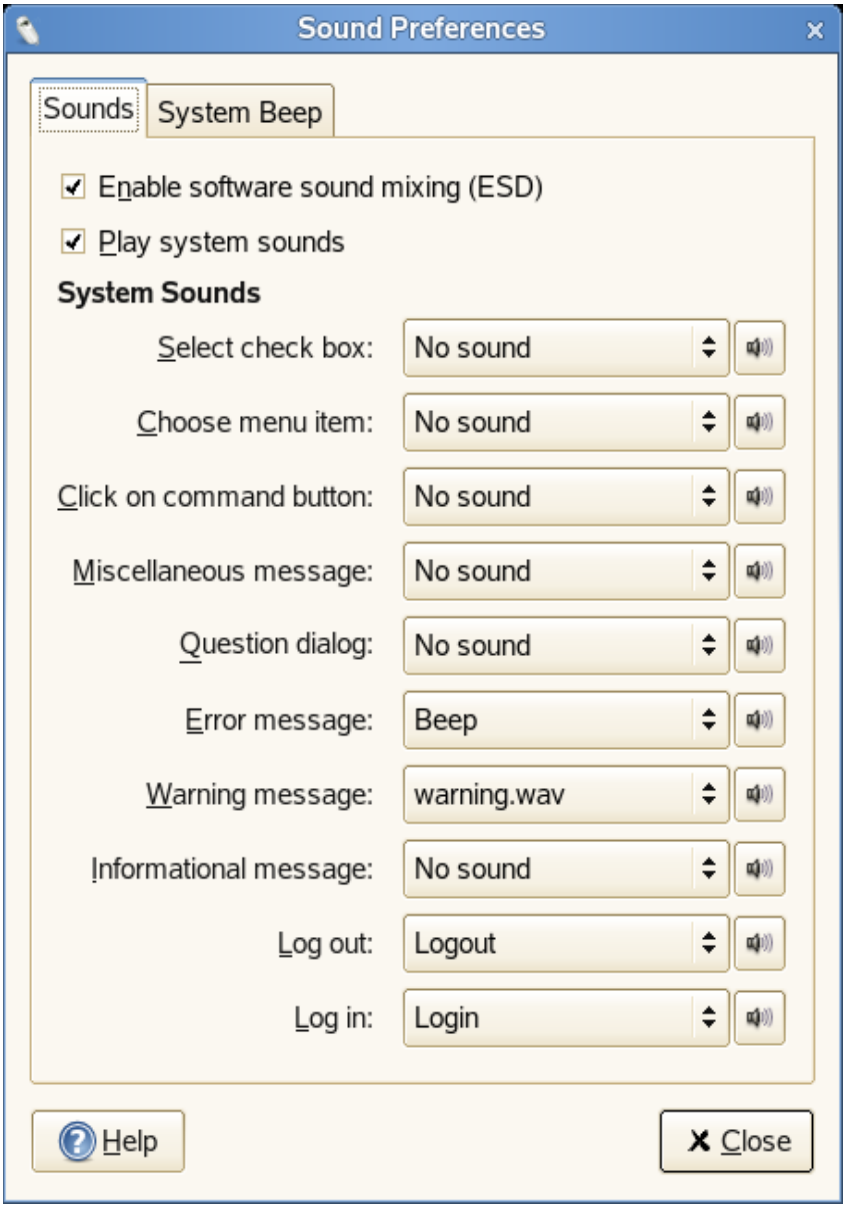


Click the drop-down list for each type of sound and select the application to use. In most cases, *Autodetect* is the best choice, unless you want to use a specific application.

Setting General Sound Preferences

Use the *Sounds* tab to specify when to launch the sound server. You can also enable sound event functions.

Figure 2-32 *Sound Preferences Dialog—General Page*



Click *Enable software sound mixing (ESD)* to start the sound server when you start a session. When the sound server is active, the desktop can play sounds.

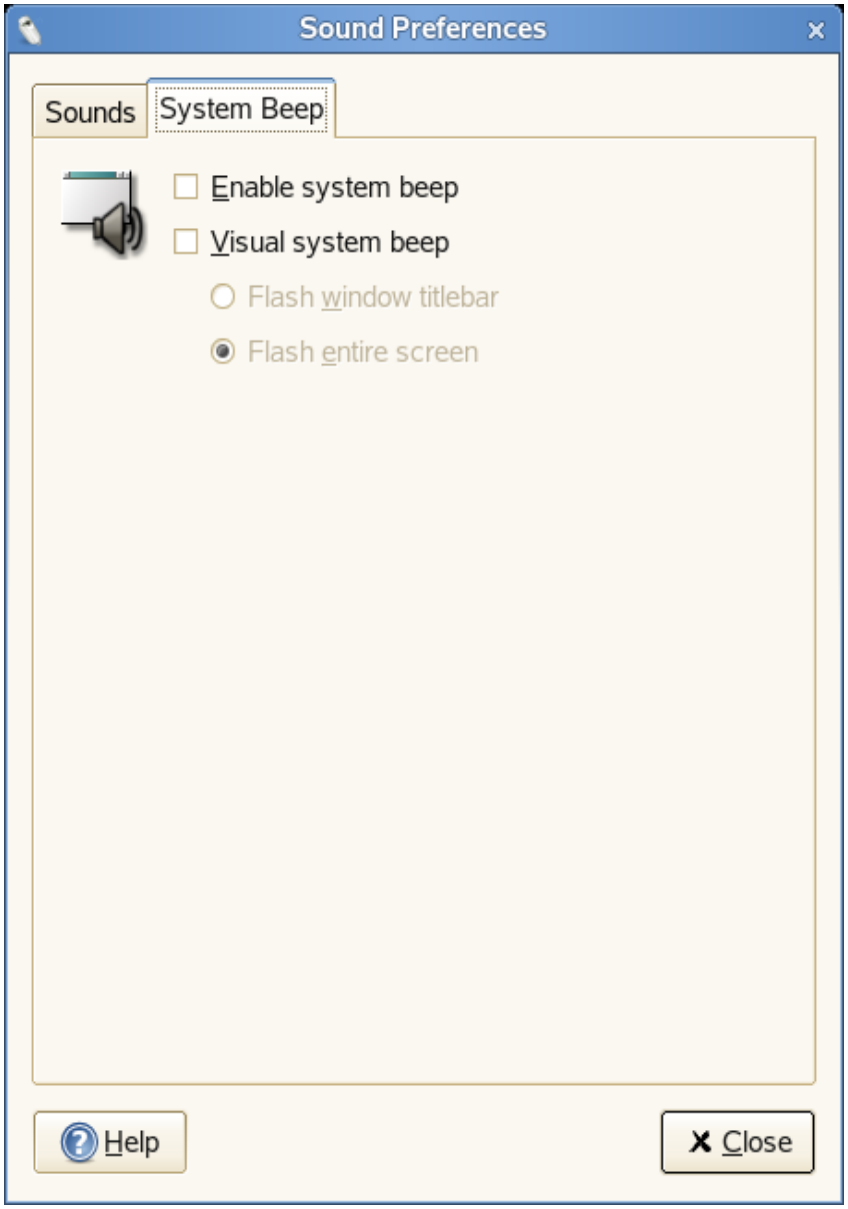
Click *Play system sounds* to play sounds when particular events occur in the desktop.

Finally, select the sound to play at each of the specified events.

Setting System Beep Preferences

Some applications play a beep sound to indicate a keyboard input error. Use the *System Beep* tab to set preferences for the system beep.

Figure 2-33 *Sound Preferences Dialog—System Beep Page*



2.4.11 Managing Users and Groups

Use the *User Management* tool to manage users and groups, including user and group names, group membership, password and password encryption, and other options.

Click *Computer* > *Control Center* > *System* > *User Management*. The *User Management* tool opens the User and Group Administration module in YaST.

NOTE: Root privileges are required to manage users and groups.

Follow the directions in YaST for information on changing settings.

2.4.12 Configuring Administrative Settings with YaST

For your convenience, YaST is available from the Control Panel as well as the Applications menu. For information about using YaST, see System Configuration with YaST (http://www.novell.com/documentation/sled10/sled_deployment/data/cha_yast2.html#cha_yast2) in the *SUSE Linux Enterprise Desktop Deployment Guide*.

Office and Collaboration

The OpenOffice.org Office Suite

3

OpenOffice.org is a powerful open-source office suite that provides tools for all types of office tasks, such as writing texts, working with spreadsheets, or creating graphics and presentations. With OpenOffice.org, you can use the same data across different computing platforms. You can also open and edit files in other formats, including Microsoft Office, then save them back to this format, if needed. This chapter covers information about the Novell® edition of OpenOffice.org and some of the key features you should be aware of when getting started with the suite.

- Section 3.1, “Understanding OpenOffice.org,” on page 105
- Section 3.2, “Word Processing with Writer,” on page 112
- Section 3.3, “Using Spreadsheets with Calc,” on page 118
- Section 3.4, “Using Presentations with Impress,” on page 120
- Section 3.5, “Using Databases with Base,” on page 121
- Section 3.6, “Creating Graphics with Draw,” on page 123
- Section 3.7, “Creating Mathematical Formulas with Math,” on page 124
- Section 3.8, “Finding Help and Information About OpenOffice.org,” on page 124

OpenOffice.org consists of several application modules (subprograms), which are designed to interact with each other. They are listed in Table 3-1. A full description of each module is available in the online help, described in Section 3.8, “Finding Help and Information About OpenOffice.org,” on page 124.

Table 3-1 *The OpenOffice.org Application Modules*

Module	Purpose
Writer	Word processor application module
Calc	Spreadsheet application module
Impress	Presentation application module
Base	Database application module
Draw	Application module for drawing vector graphics
Math	Application module for generating mathematical formulas

The appearance of the application varies depending on the desktop or window manager you use. Regardless of the appearance, the basic layout and functions are the same.

3.1 Understanding OpenOffice.org

This section contains information that applies to all of the application modules in OpenOffice.org. Module-specific information can be found in the sections relating to each module.

- Section 3.1.1, “Advantages of the Novell Edition of OpenOffice.org,” on page 106

- Section 3.1.2, “Using the Standard Edition of OpenOffice.org,” on page 107
- Section 3.1.3, “Compatibility with Other Office Applications,” on page 107
- Section 3.1.4, “Starting OpenOffice.org,” on page 108
- Section 3.1.5, “Improving OpenOffice.org Load Time,” on page 109
- Section 3.1.6, “Customizing OpenOffice.org,” on page 109
- Section 3.1.7, “Finding Templates,” on page 112

3.1.1 Advantages of the Novell Edition of OpenOffice.org

SUSE Linux Enterprise Desktop includes the Novell edition of OpenOffice.org. The Novell edition includes several enhancements that are not yet included in the standard edition.

Calc Enhancements

The Novell edition of OpenOffice.org Calc includes the following enhancements that are not found in the standard edition:

- Improved Excel compatibility for certain functions (for example, ADDRESS/OFFSE)
- Improved ergonomics, such as fixes for the standard editions missing keybindings and the “merge and center” problem
- Support for R1C1-style addresses
- Interoperation between OpenOffice.org Data Pilots and Microsoft* Pivot Tables*
- The ability to edit Data Pilots after they are created
- Addition of the GETPIVOTDATA function to help manipulate information from Pivot Tables
- Inclusion of a subset of Excel VBA macros that can be loaded and run in OpenOffice.org as if they were native macros, allowing a number of small accounting and management tools to be migrated to OpenOffice.org without having to rewrite them to target StarBasic
- A simple linear solver that allows simple numerical analysis

Writer Enhancements

The Novell edition of OpenOffice.org Writer includes the following enhancements that are not found in the standard edition:

- The Navigator provides a tree view of the document structure, providing improved document navigation
- Improved change-tracking interoperability
- Better HTML export
- Improved printing of fonts

Font Improvements

The Novell edition of OpenOffice.org includes several font enhancements, including:

- Aliased (bitmap) fonts are not allowed, preventing poor display of fonts when a document is projected

- Inclusion of a set of fonts licensed from AGFA, which are metrically compatible with some key, default Microsoft fonts and are transparently mapped to the corresponding Microsoft fonts when documents are exported or imported
- An improved OpenSymbol font, which provides better support of bullets, displaying attractive bullets rather than “missing glyph” square boxes that sometimes appear

OpenClipart

The linux version of the Novell edition of OpenOffice.org includes a large selection of free clipart from the OpenClipart (http://openclipart.org) project. To access this clipart, click *Tools* > *Gallery*.

Multimedia

The Novell edition includes native platform multimedia support with gstreamer on Linux.

Performance Improvements

The Novell edition of OpenOffice.org on Linux starts faster than the standard edition due to several enhancements. This is true even on lower-memory systems.

GroupWise Integration

The Novell edition of OpenOffice.org includes basic integration with GroupWise, allowing documents to be placed in and loaded from the GroupWise Document Management System.

3.1.2 Using the Standard Edition of OpenOffice.org

You can use the standard edition of OpenOffice.org rather than the Novell edition. If you install the latest version of OpenOffice.org, all of your Novell Edition files remain compatible. However, the standard edition does not contain the enhancements made in the Novell edition.

3.1.3 Compatibility with Other Office Applications

OpenOffice.org can work with documents, spreadsheets, presentations, and databases in many other formats, including Microsoft Office. They can be seamlessly opened like other files and saved back to the original format. Because the Microsoft formats are proprietary and the specifications are not available to other applications, there are occasionally formatting issues. If you have problems with your documents, consider opening them in the original application and resaving in an open format such as RTF for text documents or CSV for spreadsheets.

TIP: For good information about migrating from other office suites to OpenOffice.org, refer to the OpenOffice.org Migration Guide (http://documentation.openoffice.org/manuals/oooauthors2/0600MG-MigrationGuide.pdf).

Converting Documents to the OpenOffice.org Format

OpenOffice.org can read, edit, and save documents in a number of formats. It is not necessary to convert files from those formats to the OpenOffice.org format to use those files. However, if you

want to convert the files, you can do so. To convert a number of documents, such as when first switching to OpenOffice.org, do the following:

1. Select *File* > *Wizard* > *Document Converter*.
2. Choose the file format from which to convert.

   There are several StarOffice and Microsoft Office formats available.
3. Click *Next*.
4. Specify where OpenOffice.org should look for templates and documents to convert and in which directory the converted files should be placed.

   IMPORTANT: Documents from a Windows partition are usually in a subdirectory of `/windows`.
5. Make sure that all other settings are appropriate, then click *Next*.
6. Review the summary of the actions to perform, then start the conversion by clicking *Convert*.

   The amount of time needed for the conversion depends on the number of files and their complexity. For most documents, conversion does not take very long.

Sharing Files with Users of Other Office Suites

OpenOffice.org is available for a number of operating systems. This makes it an excellent tool when a group of users frequently need to share files and do not use the same system on their computers.

When sharing documents with others, you have several options.

If the recipient needs to be able to edit the file: Save the document in the format the other user needs. For example, to save as a Microsoft Word file, click *File* > *Save As*, then select the Microsoft Word file type for the version of Word the other user needs.

If the recipient only needs to read the document: Export the document to a PDF file with *File* > *Export as PDF*. PDF files can be read on any platform using a viewer like Adobe Acrobat Reader.

If you want to share a document for editing: Use one of the standard document formats. The default formats comply with the OASIS standard XML format, making them compatible with a number of applications. TXT and RTF formats, although limited in formatting, might be a good option for text documents. CSV is useful for spreadsheets. OpenOffice.org might also offer your recipient's preferred format, especially Microsoft formats.

If you want to e-mail a document as a PDF: Click *File* > *Send* > *E-mail as PDF*.Your default e-mail program opens with the file attached.

If you want to e-mail a document to a Microsoft Word user: Click *File* > *Send* > *E-mail as Microsoft Word*. Your default e-mail program opens with the file attached.

Send a document as the body of an e-mail: Click *File* > *Send* > *Document as E-mail*. Your default e-mail program opens with the contents of the document as the e-mail body.

3.1.4 Starting OpenOffice.org

Start the application in one of the following ways:

- Click *Computer* > *OpenOffice.org Writer*.

This opens Writer. To open a different module, click *File* > *New* from the newly opened Writer document, then choose the module you want to open.

- Click *Computer* > *More Applications* > *Office*, then click the name of the OpenOffice.org module you want to start.
- In a terminal window, enter `ooffice`. The OpenOffice.org window opens. Click *File* > *New*, then choose the module you want to open.

If any OpenOffice.org application is open, you can open any of the other applications by clicking *File* > *New* > *Name of Application*.

3.1.5 Improving OpenOffice.org Load Time

To speed up the load time of OpenOffice.org by preloading the application at system startup:

1. Click *Tools* > *Options* > *Memory*.
2. Select *Enable systray quickstarter*.

The next time you restart your system, OpenOffice.org will preload. When you open an OpenOffice.org application module, it will open faster.

3.1.6 Customizing OpenOffice.org

You can customize OpenOffice.org to best suit your needs and working style. Toolbars, menus, and keyboard shortcuts can all be reconfigured to help you more quickly access the features you use the most. You can also assign macros to application events if you want specific actions to occur when those events take place. For example, if you always work with a specific spreadsheet, you can create a macro that opens the spreadsheet and assign it to the Start Application event.

This section contains simple, generic instructions for customizing your environment. The changes you make are effective immediately, so you can see if the changes are what you wanted and go back and modify them if they weren't. See the OpenOffice.org help files for detailed instructions.

Customizing Toolbars

Use the *Customize* dialog to modify OpenOffice.org toolbars.

1. Click the arrow icon at the end of any toolbar.
2. Click *Customize Toolbar*.
3. Select the toolbar you want to customize.

   The toolbar you clicked should already be selected. You can change the toolbar you want to customize by selecting the desired toolbar from the *Toolbar* menu.
4. Select the check boxes next to the commands you want to appear on the toolbar, and deselect the check boxes next to the commands you don't want to appear.
5. Select whether to save your customized toolbar in the OpenOffice.org module you are using or in the document.
   - OpenOffice.org module

     The customized toolbar is used whenever you open that module.
   - Document filename

The customized toolbar is used whenever you open that document.

6 Repeat to customize additional toolbars.

7 Click *OK*.

You can quickly choose the buttons that appear on a particular toolbar.

1 Click the arrow icon at the end of the toolbar you want to change.

2 Click *Visible Buttons* to display a list of buttons.

3 Select the buttons in the list that appears to enable (check) or disable (uncheck) them.

Customizing Menus

You can add or delete items from current menus, reorganize menus, and even create new menus.

1 Click *Tools* > *Customize* > *Menu*.

2 Select the menu you want to change, or click *New* to create a new menu.

Click *Help* for more information about the options in the *Customize* dialog.

3 Modify, add, or delete menu items as desired.

4 Click *OK*.

Customizing Keyboard Shortcuts

You can reassign currently assigned keyboard shortcuts and assign new shortcuts to frequently used functions.

1 Click *Tools* > *Customize* > *Keyboard*.

2 Select the keys you want to assign to a function, or select the function and assign the keys or key combinations.

Click *Help* for more information about the options in the *Customize* dialog.

3 Modify, add, or delete keyboard shortcuts as desired.

4 Click *OK*.

Customizing Events

OpenOffice.org also provides ways to assign macros to events such as application startup or the saving of a document. The assigned macro runs automatically whenever the selected event occurs.

1 Click *Tools* > *Customize* > *Events*.

2 Select the event you want to change.

Click *Help* for more information about the options in the *Customize* dialog box.

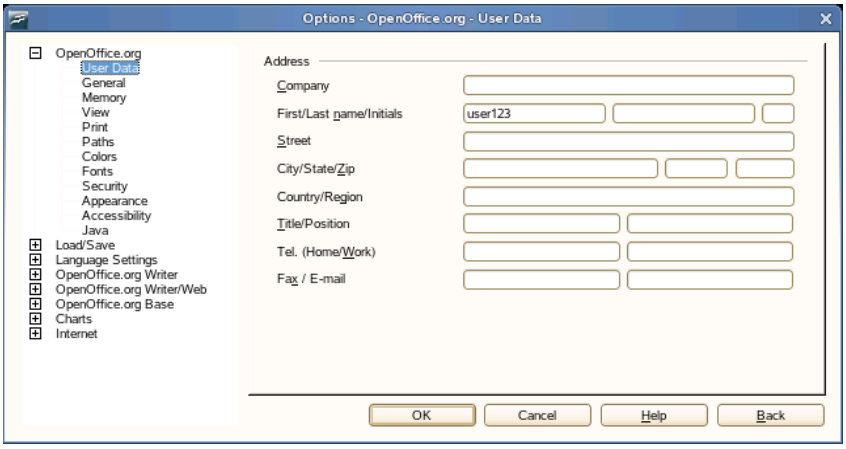
3 Assign or remove macros for the selected event.

4 Click *OK*.

Changing the Global Settings

Global settings can be changed in any OpenOffice.org application by clicking *Tools* > *Options* on the menu bar. This opens the window shown in the figure below. A tree structure is used to display categories of settings.

Figure 3-1 *The Options Window*



The following table lists the settings categories along with a brief description of each category:

NOTE: The settings categories that appear depend on the module you are working in. For example, if you are in Writer, the OpenOffice.org Writer category appears in the list, but the OpenOffice.org Calc category does not. The OpenOffice.org Base category appears in both Calc and Writer. The Application column in the table shows where each setting category is available.

Table 3-2 *Global Setting Categories*

Settings Category	Description	Application
OpenOffice.org	Various basic settings, including your user data (such as your address and e-mail), important paths, and settings for printers and external programs.	All
Load/Save	Includes the settings related to the opening and saving of several file types. There is a dialog for general settings and several special dialogs to define how external formats should be handled.	All
Language Settings	Covers the various settings related to languages and writing aids, such as your locale and spell checker settings. This is also the place to enable support for Asian languages.	All
OpenOffice.org Writer	Configures the global word processing options, such as the basic fonts and layout that Writer should use.	Writer
OpenOffice.org Writer/Web	Changes the settings related to the HTML authoring features of OpenOffice.org.	Writer
OpenOffice.org Calc	Changes the settings for Calc, such as those related to sort lists and grids.	Calc
OpenOffice.org Impress	Changes the settings that should apply to all presentations. For example, you can specify the measurement unit for the grid used to arrange elements.	Impress
OpenOffice.org Draw	Includes the settings related to the vector drawing module, such as the drawing scale, grid properties, and some print options.	Draw

Settings Category	Description	Application
OpenOffice.org Math	Provides a single dialog to set special print options for formulas.	Math
OpenOffice.org Base	Provides dialogs to set and edit connections and registered databases.	Base
Charts	Defines the default colors used for newly created charts.	All
Internet	Includes the dialogs to configure any proxies and to change settings related to search engines.	All

IMPORTANT: All settings listed in the table are applied *globally* for the specified applications. They are used as defaults for every new document you create.

3.1.7 Finding Templates

Templates greatly enhance the use of OpenOffice.org by simplifying formatting tasks for a variety of different types of documents. OpenOffice.org comes with a few templates, and you can find additional templates on the Internet. You can also create your own. Creating templates is beyond the scope of this guide, but detailed instructions are found in the OpenOffice.org help system and in other documents and tutorials available online.

In addition to templates, you can find other extras and add-ins online. The following table lists a few of the prominent places where you can find templates and other extras. (Because Web sites often close or their content changes, the information in the following table might not be current when you read it.)

Table 3-3 *Where to Find OpenOffice.org Templates and Extras*

Location	What You Can Find
OpenOffice.org documentation Web site (http://documentation.openoffice.org/Samples_Templates/User/template_2_x/index.html)	Templates for Calc spreadsheets, CD cases, seed packets, fax cover sheets, and more
Worldlabel.com (http://www.worldlabel.com/Pages/openoffice-template.htm)	Templates for many types of labels

For more information about templates, see Section 3.2.4, “Using Templates to Format Documents,” on page 116 and Section 3.3.2, “Using Templates in Calc,” on page 119.

3.2 Word Processing with Writer

OpenOffice.org Writer is a full-featured word processor with page and text formatting capabilities. Its interface is similar to interfaces for other major word processors, and it includes some features that are usually found only in expensive desktop publishing applications.

This section highlights a few key features of Writer. For more information about these features and for complete instructions for using Writer, look at the OpenOffice.org help or any of the sources listed in Section 3.8, “Finding Help and Information About OpenOffice.org,” on page 124.

NOTE: Much of the information in this section can also be applied to other OpenOffice.org modules. For example, other modules use styles similarly to how they are used in Writer.

- Section 3.2.1, “Creating a New Document,” on page 113
- Section 3.2.2, “Sharing Documents with Other Word Processors,” on page 114
- Section 3.2.3, “Formatting with Styles,” on page 114
- Section 3.2.4, “Using Templates to Format Documents,” on page 116
- Section 3.2.5, “Working with Large Documents,” on page 116
- Section 3.2.6, “Using Writer as an HTML Editor,” on page 118

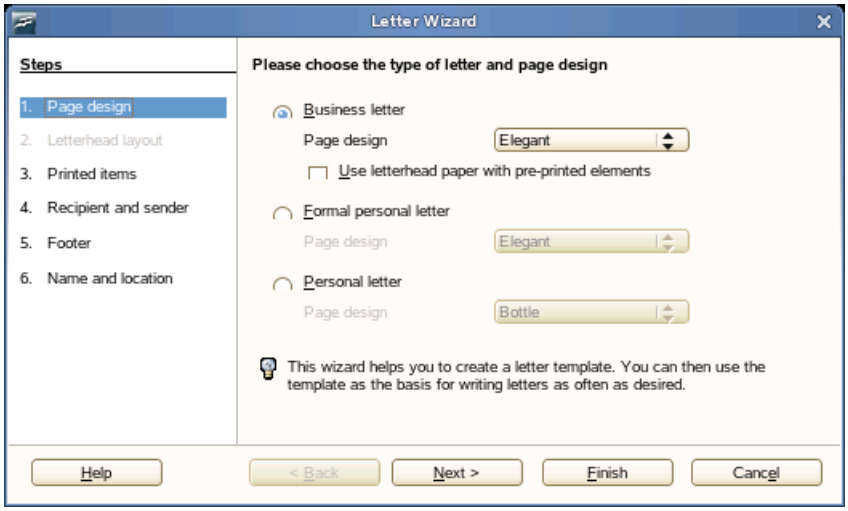
3.2.1 Creating a New Document

There are two ways to create a new document:

To create a document from scratch, click *File* > *New* > *Text Document*.

To use a standard format and predefined elements for your own documents, try a wizard. Wizards are small utilities that let you make some basic decisions then produce a ready-made document from a template. For example, to create a business letter, click *File* > *Wizards* > *Letter*. Using the wizard's dialogs, easily create a basic document using a standard format. A sample wizard dialog is shown in Figure 3-2.

Figure 3-2 *An OpenOffice.org Wizard*



Enter text in the document window as desired. Use the *Formatting* toolbar or the *Format* menu to adjust the appearance of the document. Use the *File* menu or the relevant buttons in the toolbar to print and save your document. With the options under *Insert*, add extra items to your document, such as a table, picture, or chart.

3.2.2 Sharing Documents with Other Word Processors

You can use Writer to edit documents created in a variety of other word processors. For example, you can import a Microsoft Word document, edit it, and save it again as a Word document. Most Word documents can be imported into OpenOffice.org without any problem. Formatting, fonts, and all other aspects of the document remain intact. However, some very complex documents—such as documents containing complicated tables, Word macros, or unusual fonts or formatting—might require some editing after being imported. OpenOffice.org can also save in many popular word processing formats. Likewise, documents created in OpenOffice.org and saved as Word files can be opened in Microsoft Word without any trouble.

So, if you use OpenOffice.org in an environment where you frequently share documents with Word users, you should have little or no trouble exchanging document files. Just open the files, edit them, and save them as Word files.

3.2.3 Formatting with Styles

OpenOffice.org uses styles for applying consistent formatting to various elements in a document. The following types of styles are available:

Table 3-4 *About the Types of Styles*

Type of Style	What it Does
Paragraph	Applies standardized formatting to the various types of paragraphs in your document. For example, apply a paragraph style to a first-level heading to set the font and font size, spacing above and below the heading, location of the heading, and other formatting specifications.
Character	Applies standardized formatting for types of text. For example, if you want emphasized text to appear in italics, you can create an emphasis style that italicizes selected text when you apply the style to it.
Frame	Applies standardized formatting to frames. For example, if your document uses sidebars, you can create frames with specified graphics, borders, location, and other formatting so that all of your sidebars have a consistent appearance.
Page	Applies standardized formatting to a specified type of page. For example, if every page of your document contains a header and footer except for the first page, you can use a first page style that disables headers and footers. You can also use different page styles for left and right pages so that you have bigger margins on the insides of pages and your page numbers appear on an outside corner.
List	Applies standardized formatting to specified list types. For example, you can define a checklist with square check boxes and a bullet list with round bullets, then easily apply the correct style when creating your lists.

Opening the Styles and Formatting Window

The *Styles and Formatting* window (called the *Stylist* in earlier versions of OpenOffice.org), is a versatile formatting tool for applying styles to text, paragraphs, pages, frames, and lists. To open this window, click *Format* > *Styles and Formatting*. OpenOffice.org comes with several predefined styles. You can use these styles as they are, modify them, or create new styles.

TIP: By default, the *Styles and Formatting* window is a floating window; that is, it opens in its own window that you can place anywhere on the screen. If you use styles extensively, you might find it helpful to dock the window so that it always present in the same part of the Writer interface. To dock the *Styles and Formatting* window, press Control while you double-click on a gray area in the window. This tip applies to some other windows in OpenOffice.org as well, including the Navigator.

Applying a Style

To apply a style, select the element you want to apply the style to, and then double-click the style in the *Styles and Formatting* window. For example, to apply a style to a paragraph, place the cursor anywhere in that paragraph and double-click the desired style.

Using Styles Versus Using Formatting Buttons and Menu Options

Using styles rather than the *Format* menu options and buttons helps give your pages, paragraphs, texts, and lists a more consistent look and makes it easier to change your formatting. For example, if you emphasize text by selecting it and clicking the *Bold* button, then later decide you want emphasized text to be italicized, you need to find all of your bolded text and manually change it to italics. If you use a character style, you only need to change the style from bold to italics and all text that has been formatted with that style automatically changes from bold to italics.

Text formatted with a menu option or button overrides any styles you have applied. If you use the *Bold* button to format some text and an emphasis style to format other text, then changing the style does not change the text that you formatted with the button, even if you later apply the style to the text you bolded with the button. You must manually unbold the text and then apply the style.

Likewise, if you manually format your paragraphs using *Format* > *Paragraph*, it is easy to end up with inconsistent paragraph formatting. This is especially true if you copy and paste paragraphs from other documents with different formatting.

Changing a Style

With styles, you can change formatting throughout a document by changing a style, rather than applying the change separately everywhere you want to apply the new formatting.

1. In the *Styles and Formatting* window, right-click the style you want to change.
2. Click *Modify*.
3. Change the settings for the selected style.

   For information about the available settings, refer to the OpenOffice.org online help.
4. Click *OK*.

Creating a Style

OpenOffice.org comes with a collection of styles to suit many users' needs. However, most users eventually need a style that does not yet exist. To create a new style:

1. Right-click in any empty space in the *Styles and Formatting* window.

   Make sure you are in the list of styles for the type of style you want to create. For example, if you are creating a character style, make sure you are in the character style list.
2. Click *New*.

3 Click *OK*.

4 Name your style and choose the settings you want applied with that style.

For details about the style options available in any tab, click that tab and then click *Help*.

3.2.4 Using Templates to Format Documents

Most word processor users create more than one kind of document. For example, you might write letters, memos, and reports, all of which look different and require different styles. If you create a template for each of your document types, the styles you need for each document are always readily available.

Creating a template requires a little bit of up-front planning. You need to determine what you want the document to look like so you can create the styles you need in that template. You can always change your template, but a little planning can save you a lot of time later.

NOTE: You can convert Microsoft Word templates like you would any other Word document. See "Converting Documents to the OpenOffice.org Format" on page 107 for information.

A detailed explanation of templates is beyond the scope of this section. However, more information is found in the help system, and detailed how-tos are found at the OpenOffice.org Documentation page (http://documentation.openoffice.org/HOW_TO/index.html).

Creating a Template

A template is a text document containing only the styles and content that you want to appear in every document, such as your address information and letterhead on a letter. When a document is created or opened with the template, the styles are automatically applied to that document.

To create a template:

1 Click *File* > *New* > *Text Document*.

2 Create the styles and content that you want to use in any document that uses this template.

3 Click *File* > *Templates* > *Save*.

4 Specify a name for the template.

5 In the *Categories* box, click the category you want to place the template in.

The category is the folder where the template is stored.

6 Click *OK*.

3.2.5 Working with Large Documents

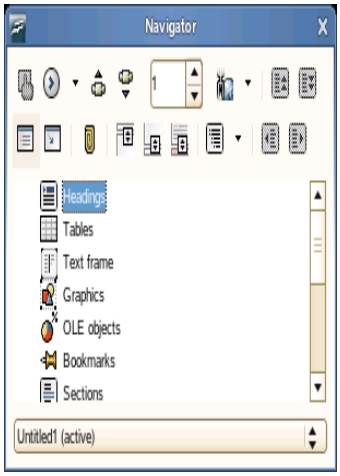
You can use Writer to work on large documents. Large documents can be either a single file or a collection of files assembled into a single document.

Navigating in Large Documents

The Navigator tool displays information about the contents of a document. It also lets you quickly jump to different elements. For example, you can use the Navigator to get a quick overview of all images included in the document.

To open the Navigator, click *Edit* > *Navigator*. The elements listed in the Navigator vary according to the document loaded in Writer.

Figure 3-3 *Navigator Tool in Writer*



Click an item in the Navigator to jump to that item in the document.

Using a Master Document to Create a Single Document from Multiple Files

If you are working with a very large document, such as a book, you might find it easier to manage the book with a master document, rather than keeping the book in a single file. A master document enables you to quickly apply formatting changes to a large document or to jump to each subdocument for editing.

A master document is a Writer document that serves as a container for multiple Writer files. You can maintain chapters or other subdocuments as individual files collected in the master document. Master documents are also useful if multiple people are working on a document. You can separate each person's portion of the document into subdocuments collected in a master document, allowing multiple writers to work on their subdocuments at the same time without fear of overwriting other people's work.

NOTE: If you are coming to OpenOffice.org from Microsoft Word, you might be nervous about using master documents because the master document feature in Word has a reputation for corrupting documents. This problem does not exist in OpenOffice.org Writer, so you can safely use master documents to manage your projects.

To create a master document:

1. Click *New* > *Master Document*.

   or

   Open an existing document and click *File* > *Send* > *Create Master Document*.
2. Insert subdocuments.
3. Click *File* > *Save*.

The OpenOffice.org help files contain more complete information about working with master documents. Look for the topic entitled "Using Master Documents and Subdocuments."

TIP: The styles from all of your subdocuments are imported into the master document. To ensure that formatting is consistent throughout your master document, you should use the same template for each subdocument. Doing so is not mandatory; however, if subdocuments are formatted differently, you might need to do some reformatting to successfully bring subdocuments into the master document without creating inconsistencies. For example, if two documents imported into your master document include different styles with the same name, the master document will use the formatting specified for that style in the first document you import.

3.2.6 Using Writer as an HTML Editor

In addition to being a full-featured word processor, Writer also functions as an HTML editor. Writer includes HTML tags that can be applied as you would any other style in a Writer document. You can view the document as it will appear online, or you can directly edit the HTML code.

Creating an HTML Document

1. Click *File* > *New* > *HTML Document*.
2. Click the arrow at the bottom of the *Formatting and Styles* window.
3. Select *HTML Styles*.
4. Create your HTML document, using the styles to tag your text.
5. Click *File* > *Save As*.
6. Select the location where you want to save your file, name the file, and select *HTML Document (.html)* from the *Filter* list.
7. Click *OK*.

If you prefer to edit HTML code directly, or if you want to see the HTML code created when you edited the HTML file as a Writer document, click *View* > *HTML Source*. In HTML Source mode, the *Formatting and Styles* list is not available.

NOTE: The first time you switch to HTML Source mode, you are prompted to save the file as HTML, if you have not already done so.

3.3 Using Spreadsheets with Calc

Calc is the OpenOffice.org spreadsheet application. Create a new spreadsheet with *File* > *New* > *Spreadsheet* or open one with *File* > *Open*. Calc can read and save in Microsoft Excel's format, so it is easy to exchange spreadsheets with Excel users.

NOTE: Calc can process many VBA macros in Excel documents; however, support for VBA macros is not yet complete. When opening an Excel spreadsheet that makes heavy use of macros, you might discover that some do not work.

In the spreadsheet cells, enter fixed data or formulas. A formula can manipulate data from other cells to generate a value for the cell in which it is inserted. You can also create charts from cell values.

- Section 3.3.1, “Using Formatting and Styles in Calc,” on page 119
- Section 3.3.2, “Using Templates in Calc,” on page 119

3.3.1 Using Formatting and Styles in Calc

Calc comes with a few built-in cell and page styles to improve the appearance of your spreadsheets and reports. Although these built-in styles are adequate for many uses, you will probably find it useful to create styles for your own frequently used formatting preferences.

Creating a Style

1. Click *Format* > *Styles and Formatting*.
2. In the *Formatting and Styles* window, click either the *Cell Styles* or the *Page Styles* icon.
3. Right-click in the *Formatting and Styles* window, then click *New*.
4. Specify a name for your style and use the various tabs to set the desired formatting options.
5. Click *OK*.

Modifying a Style

1. Click *Format* > *Styles and Formatting*.
2. In the *Formatting and Styles* window, click either the *Cell Styles* or the *Page Styles* icon.
3. Right-click the name of the style you want to change, then click *Modify*.
4. Change the desired formatting options.
5. Click OK.

3.3.2 Using Templates in Calc

If you use different styles for different types of spreadsheets, you can use templates to save your styles for each spreadsheet type. Then, when you create a particular type of spreadsheet, open the applicable template and the styles you need for that template are available in the *Formatting and Styles* window.

A detailed explanation of templates is beyond the scope of this section. However, more information is found in the help system and detailed how-tos are found at the OpenOffice.org Documentation page (http://documentation.openoffice.org/HOW_TO/index.html).

Creating a Template

A Calc template is a spreadsheet that contains styles and content that you want to appear in every spreadsheet created with that template, such as headings or other cell styles. When a spreadsheet is created or opened with the template, the styles are automatically applied to that spreadsheet.

To create a template:

1. Click *File* > *New* > *Spreadsheet*.
2. Create the styles and content that you want to use in any spreadsheet that uses this template.
3. Click *File* > *Templates* > *Save*.
4. Specify a name for the template.
5. In the *Categories* box, click the category you want to place the template in.

   The category is the folder where the template is stored.
6. Click *OK*.

3.4 Using Presentations with Impress

Use OpenOffice.org Impress to create presentations for screen display or printing, such as slide shows or transparencies. If you have used other presentation software, you can move comfortably to Impress, which works very similarly to other presentation software.

Impress can open and save Microsoft Powerpoint presentations, which means you can exchange presentations with Powerpoint users, as long as you save your presentations in Powerpoint format.

- Section 3.4.1, "Creating a Presentation," on page 120
- Section 3.4.2, "Using Master Pages," on page 120

3.4.1 Creating a Presentation

1. Click *File* > *New* > *Presentation*.
2. Select the option to use for creating the presentation.

   There are two ways to create a presentation:

   - Create an empty presentation

     Opens Impress with a blank slide. Use this option to create a new presentation from scratch, without any preformatted slides.

   - Create a presentation from a template

     Opens Impress with your choice of template. Use this option to create a new presentation with a predesigned OpenOffice.org template or a template you've created or installed yourself, such as your company's presentation template. Impress uses styles and templates the same way other OpenOffice.org modules do. See Section 3.2.4, "Using Templates to Format Documents," on page 116 for more information about templates.

3.4.2 Using Master Pages

Master pages give your presentation a consistent look by defining the way each slide looks, what fonts are used, and other graphical elements. Impress uses two types of master pages:

- Slide master

  Contains elements that appear on all slides. For example, you might want your company logo to appear in the same place on every slide. The slide master also determines the text formatting style for the heading and outline of every slide that uses that master page, as well as any information you want to appear in a header or footer.

- Notes master

  Determines the formatting and appearance of the notes in your presentation.

Creating a Slide Master

Impress comes with a collection of preformatted master pages. Eventually, most users will want to customize their presentations by creating their own slide masters.

1. Start Impress, then create a new empty presentation.
2. Click *View* > *Master* > *Slide Master*.

   This opens the current slide master in Master View.

3 Right-click the left-hand panel, then click *New Master*.

4 Edit the slide master until it has the desired look.

5 Click *Close Master View* or *View* > *Normal* to return to Normal View.

TIP: When you have created all of the slide masters you want to use in your presentations, you can save them in an Impress template. Then, any time you want to create presentations that use those slide masters, open a new presentation with your template.

Applying a Slide Master

Slide masters can be applied to selected slides or to all slides in the presentation.

1 Open your presentation, then click *View* > *Master* > *Slide Master*.

2 (Optional) If you want to apply the slide master to multiple slides, but not to all slides, select the slides that you want to use that slide master.

To select multiple slides, in the Slides Pane, Control-click on the slides you want to use that slide master.

3 In the Task Pane, right-click the master page you want to apply.

If you do not see the Task Pane, click *View* > *Task Pane*.

4 Apply the slide master by clicking one of the following:.

- *Apply to All Slides*

  Applies the selected slide master to all slides in the presentation.

- *Apply to Selected Slides*

  Applies the selected slide master to the current slide, or to any slides you select before applying the slide master. For example, if you want to apply a different slide master to the first slide in a presentation, select that slide, then change to Master View and apply a slide master to that slide.

3.5 Using Databases with Base

OpenOffice.org includes a database module, Base. Use Base to design a database to store many different kinds of information, from a simple address book or recipe file to a sophisticated document management system.

Tables, forms, queries, and reports can be created manually or using convenient wizards. For example, the Table Wizard contains a number of common fields for business and personal use. Databases created in Base can be used as data sources, such as when creating form letters.

It is beyond the scope of this document to detail database design with Base. More information can be found at the sources listed in Section 3.8, “Finding Help and Information About OpenOffice.org,” on page 124.

3.5.1 Creating a Database Using Predefined Options

Base comes with several predefined database fields to help you create a database. The steps in this section are specific to creating an address book using predefined fields, but it should be easy to follow them to use the predefined fields for any of the built-in database options.

The process for creating a database can be broken into several subprocesses:

- "Creating the Database" on page 122
- "Setting Up the Database Table" on page 122
- "Creating a Form" on page 123
- "Modifying the Form" on page 123
- "What's Next?" on page 123

Creating the Database

First, create the database.

1. Click *File* > *New* > *Database*.
2. Select *Create a new database*, then click *Next*.
3. Click *Yes, register the database for me* to make your database information available to other OpenOffice.org modules, select both check boxes in the bottom half of the dialog, then click *Finish*.
4. Browse to the directory where you want to save the database, specify a name for the database, then click *OK*.

Setting Up the Database Table

Next, define the fields you want to use in your database table.

1. In the Table Wizard, click *Personal*.

   The *Sample tables* list changes to show the predefined tables for personal use. If you had clicked *Business*, the list would contain predefined business tables.
2. In the *Sample tables* list, click *Addresses*.

   The available fields for the predefined address book appear in the *Available fields* menu.
3. In the *Available fields* menu, click the fields you want to use in your address book.

   You can select one item at a time, or you can shift-click multiple items to select them.
4. Click the single right-arrow to move the selected items to the *Selected fields* menu.

   To move all available fields to the *Selected fields* menu, click the double right-arrow.
5. Use the up-arrow and down-arrow to adjust the order of the selected fields.

   The fields appear in the table and forms in the order in which they are listed.
6. Click *Next*.
7. Make sure each of the fields is defined correctly.

   You can change the field name, type, whether the entry is required, and the maximum length of the field (the number of characters that can be entered in that field. For this example, leave the settings as they are.
8. Click *Next*.
9. Click *Create a primary key*, click *Automatically add a primary key*, click *Auto value*, then click *Next*.
10. Accept the default name for the table, select *Create a form based on this tabl*e, then click *Finish*.

Creating a Form

Next, create the form to use when entering data into your address book.

1. In the Form Wizard, click the double right-arrow to move all available fields to the *Fields in the form* list, then click *Next* twice.
2. Select how you want to arrange your form, then click *Next*.
3. Select the option to use the form to display all data and leave all of the check boxes empty, then click *Next*.
4. Apply a style and field border, then click *Next*.

   For this example, accept the default selections.
5. Name the form, select the *Modify the form* option, then click *Finish*.

Modifying the Form

After the form has been defined, you can modify the appearance of the form to suit your preferences.

1. Close the form that opened when you finished the previous step.
2. In the main window for your database, right-click the form you want to modify (there should be only one option), then click *Edit*.
3. Arrange the fields on the form by dragging them to their new locations.

   For example, move the First Name field so it appears to the right of the Last Name field, and then adjust the locations of the other fields to suit your preference.
4. When you have finished modifying the form, save it and close it.

What's Next?

After you have created your database tables and forms, you are ready to enter your data. You can also design queries and reports to help sort and display the data.

Refer to OpenOffice.org online help and other sources listed in Section 3.8, "Finding Help and Information About OpenOffice.org," on page 124 for additional information about Base.

3.6 Creating Graphics with Draw

Use OpenOffice.org Draw to create graphics and diagrams. You can save your drawings in today's most common formats and import them into any application that lets you import graphics, including the other OpenOffice.org modules. You can also create Flash versions of your drawings.

The OpenOffice.org documentation contains complete instructions on using Draw. See Section 3.8, "Finding Help and Information About OpenOffice.org," on page 124 for more information.

To use a Draw graphic in a document:

1. Open Draw, then create the graphic.
2. Save the graphic.
3. Copy the graphic and paste it into the document, or insert the graphic directly from the document.

One particularly useful feature of Draw is the ability to open it from other OpenOffice.org modules so you can create a drawing that is automatically imported into your document.

1. From an OpenOffice.org module (for example, from Writer), click *Insert* > *Object* > *OLE Object* > *OpenOffice.org 2.0 Drawing* > *OK*.

   This opens Draw.

2. Create your drawing.
3. Click in your document, outside the Draw frame.

   The drawing is automatically inserted into your document.

3.7 Creating Mathematical Formulas with Math

It is usually difficult to include complex mathematical formulas in your documents. The OpenOffice.org Math equation editor lets you create formulas using operators, functions, and formatting assistants. You can then save those formulas as objects that can be imported into other documents. Math functions can be inserted into other OpenOffice.org documents like any other graphic object.

NOTE: Math is not a calculator. The functions it creates are graphical objects. Even if they are imported into Calc, these functions cannot be evaluated.

3.8 Finding Help and Information About OpenOffice.org

OpenOffice.org contains extensive online help. In addition, a large community of users and developers support it. As a result, it is seldom hard to find help or information about using the OpenOffice.org. The following table shows some of the places where you can go for additional information. (Because Web sites often close or their content changes, the information in the following table might not be current when you read it.)

Table 3-5 *Where to Get Information About OpenOffice.org*

Location	What You Can Find
OpenOffice.org online help menu	Extensive help on performing any task in OpenOffice.org
Official OpenOffice.org support page (http://support.openoffice.org/index.html)	Manuals, tutorials, user and developer forums, users@openoffice.org mailing list, FAQs, and much more
OpenOffice.org Migration Guide (http://documentation.openoffice.org/manuals/oooauthors2/0600MG-MigrationGuide.pdf)	Information about migrating to OpenOffice.org from other office suites, including Microsoft Office
Taming OpenOffice.org (http://www.taming-openoffice-org.com/)	Books, news, tips and tricks
OpenOffice.org Macros (http://www.pitonyak.org/oo.php)	Extensive information about creating and using macros

Evolution: E-Mail and Calendaring 4

Evolution™ makes the tasks of storing, organizing, and retrieving your personal information easy, so you can work and communicate more effectively with others. It's a highly evolved groupware program, an integral part of the Internet-connected desktop.

Evolution can help you work in a group by handling e-mail, address, and other contact information, and one or more calendars. It can do that on one or several computers, connected directly or over a network, for one person or for large groups.

With Evolution, you can accomplish your most common daily tasks quickly. For example, it takes only one or two clicks to enter appointment or contact information sent to you by e-mail, or to send e-mail to a contact or appointment. People who get lots of e-mail will appreciate advanced features like search folders, which let you save searches as though they were ordinary e-mail folders.

This chapter introduces you to Evolution and helps you get started using it. For complete information, refer to the Evolution documentation.

- Section 4.1, "Starting Evolution for the First Time," on page 125
- Section 4.2, "Using Evolution: An Overview," on page 132

4.1 Starting Evolution for the First Time

Start the Evolution client by clicking *Computer* > *Evolution*, or by typing `evolution` in a terminal window.

4.1.1 Using the Setup Assistant

The first time you run Evolution, it creates a directory called `.evolution` in your home directory, where it stores all of its local data. Then, it opens a Setup Assistant to help you set up e-mail accounts and import data from other applications.

Using the Setup Assistant takes two to five minutes.

Later on, if you want to change this account, or if you want to create a new one, click *Edit* > *Preferences*, then click *Mail Accounts*. Select the account you want to change, then click *Edit*. Alternately, add a new account by clicking *Add*.

The Setup Assistant helps you provide the information Evolution needs to get started.

- "Defining Your Identity" on page 126
- "Receiving Mail" on page 126
- "Receiving Mail Options" on page 128
- "Sending Mail" on page 131
- "Account Management" on page 132
- "Time Zone" on page 132
- "Importing Mail (Optional)" on page 132

Defining Your Identity

The Identity window is the first step in the assistant.

Here, you enter some basic personal information. You can define multiple identities later by clicking *Edit* > *Preferences*, then clicking *Mail Accounts*.

When the First-Run Assistant starts, the Welcome page is displayed. Click *Forward* to proceed to the Identity window.

1. Type your full name in the *Full Name* field.
2. Type your e-mail address in the *E-Mail Address* field.
3. (Optional) Select if this account is your default account.
4. (Optional) Type a reply to address in the *Reply-To* field.

   Use this field if you want replies to e-mails sent to a different address.
5. (Optional) Type your organization name in the *Organization* field.

   This is the company where you work, or the organization you represent when you send e-mail.
6. Click *Forward*.

Receiving Mail

The Receiving E-mail option lets you determine where you get your e-mail.

You need to specify the type of server you want to receive mail with. If you are unsure about the type of server to choose, ask your system administrator or ISP.

1. Select a server type in the *Server Type* list.

   The following a list of server types that are available:

   Novell GroupWise: Select this option if you connect to Novell GroupWise®. Novell GroupWise keeps e-mail, calendar, and contact information on the server.

   Microsoft Exchange: Available only if you have installed the Connector for Microsoft* Exchange. It allows you to connect to a Microsoft Exchange 2000 or 2003 server, which stores e-mail, calendar, and contact information on the server.

   IMAP: Keeps the e-mail on your server so you can access your e-mail from multiple systems.

   IMAP4rev1: Keeps the e-mail on your server so you can access your e-mail from multiple systems.

   POP: Downloads your e-mail to your hard disk for permanent storage, freeing up space on the e-mail server.

   USENET News: Connects to the news server and downloads a list of available news digests.

   Local Delivery: Choose this option if you want to move e-mail from the spool (the location where mail waits for delivery) and store it in your home directory. You need to provide the path to the mail spool you want to use. If you want to leave e-mail in your system's spool files, choose the Standard Unix Mbox Spool option instead.

MH Format Mail Directories: If you download your e-mail using mh or another MH-style program, you should use this option. You need to provide the path to the mail directory you want to use.

Maildir Format Mail Directories: If you download your e-mail using Qmail or another maildir-style program, you should use this option. You need to provide the path to the mail directory you want to use.

Standard Unix Mbox Spool or Directory: If you want to read and store e-mail in the mail spool on your local system, choose this option. You need to provide the path to the mail spool you want to use.

None: Select this if you do not plan to check e-mail with this account. If you select this, there are no configuration options.

Remote Configuration Options

If you selected Novell GroupWise, IMAP, POP, or USENET News as your server, you need to specify additional information.

1. Type the hostname of your e-mail server in the *Hostname* field.

   If you don't know the hostname, contact your administrator.
2. Type your username for the account in the *Username* field.
3. Select to use a secure (SSL) connection.

   If your server supports secure connections, you should enable this security option. If you are unsure if your server supports a secure connection, contact your system administrator.
4. Select your authentication type in the *Authentication* list.

   or

   Click *Check for Supported Types* to have Evolution check for supported types. Some servers do not announce the authentication mechanisms they support, so clicking this button is not a guarantee that available mechanisms actually work.

   If you are unsure what authentication type you need, contact your system administrator.
5. Select if you want Evolution to remember your password.
6. Click *Forward*.
7. (Conditional) If you chose Microsoft Exchange, provide your username in the *Username* field and your Outlook Web Access (OWA) URL in the *OWA Url* field. OWA URL and user names should be entered as in OWA. If the mail box path is different from the username, OWA path should include mail box path also. You should see something similar to this: http://<server name>/exchange/<mail box path>

When you have finished, continue with "Receiving Mail Options" on page 128.

Local Configuration Options

If you selected *Local Delivery*, *MH-Format Mail Directories*, *Maildir-Format Mail Directories*, or *Standard Unix Mbox Spool or Directory*, you must specify the path to the local files in the path field. Continue with "Receiving Mail Options" on page 128.

Receiving Mail Options

After you have selected a mail delivery mechanism, you can set some preferences for its behavior.

- "Novell GroupWise Receiving Options" on page 128
- "Microsoft Exchange Receiving Options" on page 128
- "IMAP and IMAP4rev1 Receiving Options" on page 129
- "POP Receiving Options" on page 129
- "USENET News Receiving Options" on page 130
- "Local Delivery Receiving Options" on page 130
- "MH-Format Mail Directories Receiving Options" on page 130
- "Maildir-Format Mail Directories Receiving Options" on page 130
- "Standard Unix Mbox Spool or Directory Receiving Options" on page 131

Novell GroupWise Receiving Options

If you select Novell GroupWise as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to check for new messages in all folders.
3. Select if you want to apply filters to new messages in the Inbox on the server.
4. Select if you want to check new messages for junk content.
5. Select if you want to only check for junk messages in the Inbox folder.
6. Select if you want to automatically synchronize remote mail locally.
7. Type your Post Office Agent SOAP port in the *Post Office Agent SOAP Port* field.

   If you are unsure what your Post Office Agent SOAP port is, contact your system administrator.
8. Click *Forward*.

When you have finished, continue with Sending Mail.

Microsoft Exchange Receiving Options

If you select Microsoft Exchange as your receiving server type, you need to specify the following options.

1. Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.
2. Specify the Global Catalog server name in the *Global Catalog Server Name* field.

   The Global Catalog Server contains the user information for users. If you are unsure what your Global Catalog server name is, contact your system administrator.
3. Select if you want to limit the number of Global Address Lists (GAL).

The GAL contains a list of all e-mail addresses. If you select this option, you need to specify the maximum number of responses.

4 Select if you want the password expire warning period.

If you select this option, you need to specify how often Evolution should send the password expire message.

5 Select if you want to automatically synchronize remote mail locally.

6 Click *Forward*.

When you have finished, continue with Sending Mail.

IMAP and IMAP4rev1 Receiving Options

If you select IMAP or IMAP4rev1 as your receiving server type, you need to specify the following options:

1 Select if you want Evolution to automatically check for new mail.

If you select this option, you need to specify how often Evolution should check for new messages.

2 Select if you want Evolution to use custom commands to connect to Evolution.

If you select this option, specify the custom command you want Evolution to use.

3 Select if you want Evolution to show only subscribed folders.

Subscribed folders are folders that you have chosen to receive mail from by subscribing to them.

4 Select if you want Evolution to override server-supplied folder namespaces.

By choosing this option you can rename the folders that the server provides. If you select this option, you need to specify the namespace to use.

5 Select if you want to apply filters to new messages in the Inbox.

6 Select if you want to check new messages for junk content.

7 Select if you want to check for junk messages in the Inbox folder.

8 Select if you want to automatically synchronize remote mail locally.

9 Click *Forward*.

When you have finished, continue with Sending Mail.

POP Receiving Options

If you select POP as your receiving server type, you need to specify the following options:

1 Select if you want Evolution to automatically check for new mail.

If you select this option, you need to specify how often Evolution should check for new messages.

2 Select if you want to leave messages on the server.

3 Select if you want to disable support for all POP3 extensions (support for POP3).

4 Click *Forward*.

When you have finished, continue with Sending Mail.

USENET News Receiving Options

If you select USENET News as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to show folders in short notation.

   For example, comp.os.linux would appear as c.o.linux.
3. Select if you want to show relative folder names in the subscription dialog box.

   If you select to show relative folder names in the subscription page, only the name of the folder is displayed. For example the folder evolution.mail would appear as evolution.
4. Click *Forward*.

When you have finished, continue with Sending Mail.

Local Delivery Receiving Options

If you select Local Delivery as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.
2. Click *Forward*.

When you have finished, continue with Sending Mail.

MH-Format Mail Directories Receiving Options

If you select MH-Format Mail Directories as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to user the `.folders` summary file.
3. Click *Forward*.

When you have finished, continue with Sending Mail.

Maildir-Format Mail Directories Receiving Options

If you select Maildir-Format Mail Directories as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.

2 Select if you want to apply filters to new messages in the Inbox.

3 Click *Forward*.

When you have finished, continue with Sending Mail.

Standard Unix Mbox Spool or Directory Receiving Options

If you select Standard Unix Mbox Spool or Directory as your receiving server type, you need to specify the following options:

1 Select if you want Evolution to automatically check for new mail.

If you select this option, you need to specify how often Evolution should check for new messages.

2 Select if you want to apply filters to new messages in the Inbox.

3 Select if you want to store status headers in Elm, Pine, and Mutt formats.

4 Click *Forward*.

When you have finished, continue with Sending Mail Sending Mail.

Sending Mail

Now that you have entered information about how you plan to get mail, Evolution needs to know about how you want to send it.

1 Select a server type from the *Server Type* list.

The following server types are available:

Sendmail: Uses the Sendmail program to send mail from your system. Sendmail is more flexible, but is not as easy to configure, so you should select this option only if you know how to set up a Sendmail service.

SMTP: Sends mail using an outbound mail server. This is the most common choice for sending mail. If you choose SMTP, there are additional configuration options.

SMTP Configuration

1 Type the host address in the *Host* field.

If you are unsure what your host address is, contact your system administrator.

2 Select if your server requires authentication.

If you selected that your server requires authentication, you need to provide the following information:

2a Select your authentication type in the *Authentication* list.

or

Click *Check for Supported Types* to have Evolution check for supported types. Some servers do not announce the authentication mechanisms they support, so clicking this button is not a guarantee that available mechanisms actually work.

2b Type your username in the *Username* field.

2c Select if you want Evolution to remember your password.

3 Select if you use a secure connection (SSL).

4 Click *Forward*.

Continue with Account Management.

Account Management

Now that you have finished the e-mail configuration process you need to give the account a name. The name can be any name you prefer. Type your account name on the *Name* field, then click *Forward*.

Continue with Time Zone.

Time Zone

In this step, you need to select your time zone either on the map or select from the time zone drop-down list.

When you have finished, click *Forward*, then click *Apply*. Evolution opens with your new account created.

If you want to import e-mail from another e-mail client, continue with Importing Mail (Optional). If not, skip to "Using Evolution: An Overview" on page 132.

Importing Mail (Optional)

If Evolution finds e-mail or address files from another application, it offers to import them.

Microsoft Outlook* and versions of Outlook Express after version 4, use proprietary formats that Evolution cannot read or import. To import information, you might want to use the Export tool under Windows*.

Before importing e-mail from Netscape*, make sure you have selected *File* > *Compact All Folders*. If you don't, Evolution will import and undelete the messages in your Trash folders.

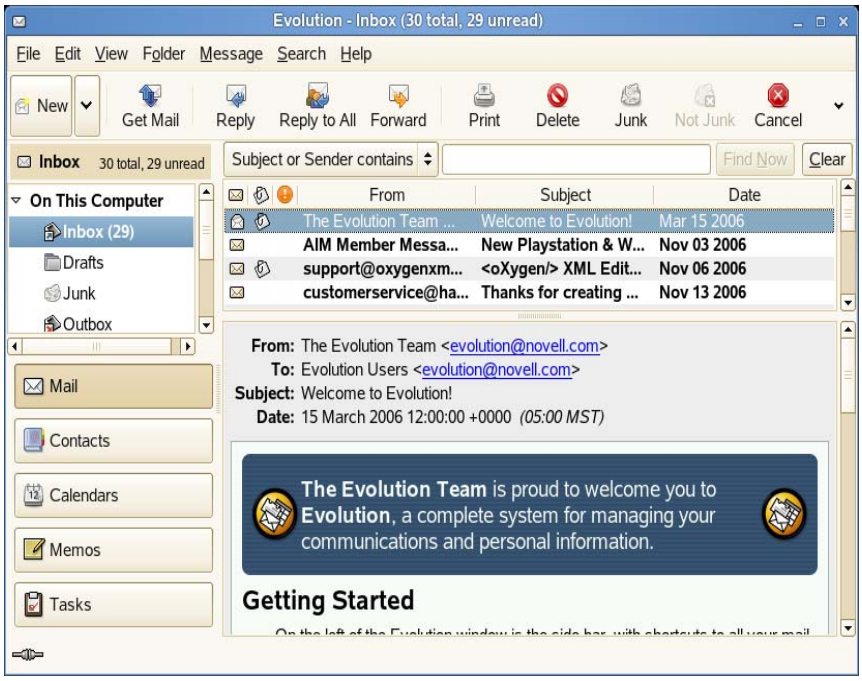
NOTE: Evolution uses standard file types for e-mail and calendar information, so you can copy those files from your `~/.evolution` directory. The file formats used are `mbox` for e-mail and `iCal` for calendar information.

Contacts files are stored in a database, but can be saved as a standard vCard*. To export contact data, open your contacts tool and select the contacts you want to export (press Ctrl+A to select them all). Click *File* > *Save as VCard*.

4.2 Using Evolution: An Overview

Now that the first-run configuration has finished, you're ready to begin using Evolution. Here's a quick explanation of what's happening in your main Evolution window.

Figure 4-1 *Evolution Window*



Menu Bar

The menu bar gives you access to nearly all of Evolution features.

Folder List

The folder list gives you a list of the available folders for each account. To see the contents of a folder, click the folder name and the contents are displayed in the e-mail list.

Toolbar

The toolbar gives you fast and easy access to the frequently used features in each component.

Search Tool

The search tool lets you search your e-mail, contacts, calendar, and tasks to easily find what you're looking for.

Message List

The message list displays a list of e-mail that you have received. To view an e-mail in the preview pane, click the e-mail in the e-mail list.

Shortcut Buttons

The shortcut bar lets you switch between folders and between Evolution tools. At the bottom of the shortcut bar there are buttons that let you switch tools, and above that is a list of all the available folders for the current tool. If you have the Evolution Connector for Microsoft Exchange installed, you have an Exchange button in addition to buttons for the other tools.

Status Bar

The status bar periodically displays a message, or tells you the progress of a task. This most often happens when you're checking or sending e-mail. These progress queues are shown in the previous figure. The Online/Offline indicator is here, too, in the lower left of the window.

Preview Pane

The preview pane displays the contents of the e-mail that is selected in the e-mail list.

4.2.1 The Menu Bar

The menu bar's contents always provide all the possible actions for any given view of your data. If you're looking at your Inbox, most of the menu items relate to e-mail. Some content relates to other components of Evolution and some, especially those in the File menu, relates to the application as a whole.

File: Anything related to a file or to the operations of the application usually falls under this menu, such as creating things, saving them to disk, printing them, and quitting the program itself.

Edit: Holds useful tools that help you edit text and move it around. Lets you access the settings and configuration options in the Edit menu.

View: Lets you decide how Evolution should look. Some of the features control the appearance of Evolution as a whole, and others the way a particular kind of information appears.

Folder: Holds actions that can be performed on folders. You can find things like copy, rename, delete, and so on.

Message: Holds actions that can be applied to a message. If there is only one target for the action, such as replying to a message, you can normally find it in the Message menu.

Search: Lets you search for messages, or for phrases within a message. You can also see previous searches you have made. In addition to the Search menu, there is a text entry box in the toolbar that you can use to search for messages. You can also create a search folder from a search.

Help: Opens the Evolution Help files.

4.2.2 The Shortcut Bar

Evolution's most important job is to give you access to your information and help you use it quickly. One way it does that is through the shortcut bar, which is the column on the left side of the main window. The buttons, such as Mail and Contacts, are the shortcuts. Above them is a list of folders for the current Evolution tool.

The folder list organizes your e-mail, calendars, contact lists, and task lists in a tree, similar to a file tree. Most people find one to four folders at the base of the tree, depending on the tool and their system configuration. Each Evolution tool has at least one, called On This Computer, for local information. For example, the folder list for the e-mail tool shows any remote e-mail storage you have set up, plus local folders and search folders.

If you get large amounts of e-mail, you might want more folders than just your Inbox. You can create multiple calendar, task, or contacts folders.

To create a new folder:

1. Click *Folder* > *New*.
2. Type the name of the folder in the *Folder Name* field.
3. Select the location of the new folder.
4. Click *OK*.

Folder Management

Right-click a folder or subfolder to display a menu with the following options:

Copy: Copies the folder to a different location. When you select this item, Evolution offers a choice of locations to copy the folder to.

Move: Moves the folder to another location.

Mark Messages As Read: Marks all the messages in the folder as read.

New Folder: Creates another folder in the same location.

Delete: Deletes the folder and all its contents.

Rename: Lets you change the name of the folder.

Disable: Disables the account.

Properties: Checks the number of total and unread messages in a folder, and, for remote folders, lets you select whether to copy the folder to your local system for offline operation.

You can also rearrange folders and messages by dragging and dropping them.

Any time new e-mail arrives in a e-mail folder, that folder label is displayed in bold text, along with the number of new messages in that folder.

4.2.3 E-Mail

Evolution e-mail is like other e-mail programs in several ways:

- It can send and receive e-mail in HTML or as plain text, and makes it easy to send and receive multiple file attachments.
- It supports multiple e-mail sources, including IMAP, POP3, and local mbox or mh spools and files created by other e-mail programs.
- It can sort and organize your e-mail in a wide variety of ways with folders, searches, and filters.
- It lets you guard your privacy with encryption.

However, Evolution has some important differences from other e-mail programs. First, it's built to handle very large amounts of e-mail. The junk e-mail, message filtering and searching functions were built for speed and efficiency. There's also the search folder, an advanced organizational feature not found in some e-mail clients. If you get a lot of e-mail, or if you keep every message you get in case you need to refer to it later, you'll find this feature especially useful. Here's a quick explanation of what's happening in your main Evolution e-mail window.

Message List

The message list displays all the e-mails that you have. This includes all your read and unread messages, and e-mail that is flagged to be deleted.

Preview Pane

This is where your e-mail is displayed.

If you find the preview pane too small, you can resize the pane, enlarge the whole window, or double-click the message in the message list to have it open in a new window. To change the size of a pane, drag the divider between the two panes.

As with folders, you can right-click messages in the message list and get a menu of possible actions, including moving or deleting them, creating filters or search folders based on them, and marking them as junk mail.

Most of the e-mail-related actions you want to perform are listed in the Actions menu in the menu bar. The most frequently used ones, like Reply and Forward, also appear as buttons in the toolbar. Most of them are also located in the right-click menu and as keyboard shortcuts.

4.2.4 The Calendar

To begin using the calendar, click Calendar in the shortcut bar. By default, the calendar shows today's schedule on a ruled background. At the upper right, there's a monthly calendar you can use to switch days. Below that, there's a Task list, where you can keep a list of tasks separate from your calendar appointments.

Appointment List

The appointment list displays all your scheduled appointments.

Month Pane

The month pane is a small view of a calendar month. To display additional months, drag the column border to the left. You can also select a range of days in the month pane to display a custom range of days in the appointment list.

Task List

Tasks are distinct from appointments because they generally don't have times associated with them. You can see a larger view of your task list by clicking Tasks in the shortcut bar.

4.2.5 The Contacts Tool

The Evolution contacts tool can handle all of the functions of an address book or phone book. However, it's easier to update Evolution than it is to change an actual paper book, in part because Evolution can synchronize with Palm OS* devices and use LDAP directories on a network.

Another advantage of the Evolution contacts tool is its integration with the rest of the application. For example, you can right-click on an e-mail address in Evolution mail to instantly create a contact entry.

To use the contacts tool, click *Contacts* in the shortcut bar. By default, the display shows all your contacts in alphabetical order, in a minicard view. You can select other views from the *View* menu, and adjust the width of the columns by clicking and dragging the gray column dividers.

The largest section of the contacts display shows a list of individual contacts. You can also search the contacts in the same way that you search e-mail folders, using the search tool on the right side of the toolbar.

GroupWise Linux Client: E-Mailing and Calendaring

5

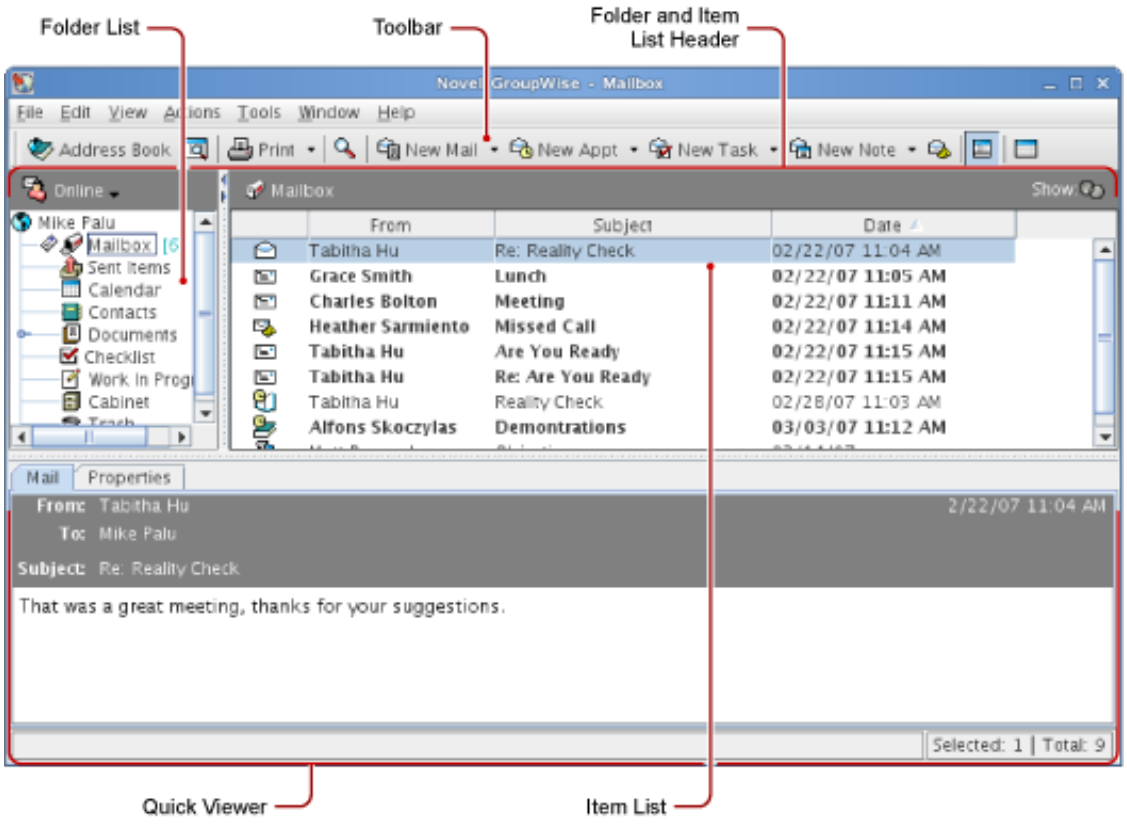
GroupWise® is a robust, dependable messaging and collaboration system that connects you to your universal mailbox anytime and anywhere. This section gives you an introductory overview of the GroupWise client to help you start using the GroupWise Cross-Platform client quickly and easily.

- Section 5.1, “Getting Acquainted with the Main GroupWise Window,” on page 139
- Section 5.2, “Using Different GroupWise Modes,” on page 144
- Section 5.3, “Understanding Your Mailbox,” on page 145
- Section 5.4, “Using the Toolbar,” on page 147
- Section 5.5, “Using Shortcut Keys,” on page 147
- Section 5.6, “Learning More,” on page 149

5.1 Getting Acquainted with the Main GroupWise Window

Your main work area in GroupWise is called the Main Window. From the Main Window of GroupWise, you can read your messages, schedule appointments, view your Calendar, manage contacts, change the mode of GroupWise you’re running in, open folders, open documents, and much more.

Figure 5-1 *GroupWise Main Window*



You can open more than one Main Window in GroupWise by clicking *Window*, then clicking *New Main Window*. This is useful if you proxy for another user. You can look at your own Main Window and the Main Window belonging to the person you are proxying for. You might also want to open a certain folder in one window and look at your Calendar in another. You can open as many Main Windows as your computer's memory allows.

The basic components of the Main Window are explained below.

5.1.1 Toolbar

The toolbar lets you quickly accomplish common GroupWise tasks, such as opening the Address Book, sending mail messages, and finding an item. For information about the toolbar, see Section 5.4, "Using the Toolbar," on page 147.

5.1.2 Folder and Item List Header

The Folder and Item List header provides a drop-down list where you can select the mode of GroupWise you want to run (Online or Caching), select to open your archived or backup mailbox, and select a proxy mailbox.

5.1.3 Folder List

The Folder List at the left of the Main Window lets you organize your GroupWise items. You can create new folders to store your items in. Next to any folder (except for shared folders), the number of unread items is shown in square brackets. Next to the Sent Items folder, the number in square brackets shows how many items are pending to be sent from Caching mode.

Here is what you'll find in each of the default folders:

- "User Folder" on page 141
- "Mailbox Folder" on page 141
- "Sent Items Folder" on page 141
- "Calendar Folder" on page 142
- "Contacts Folder" on page 142
- "Checklist Folder" on page 142
- "Documents Folder" on page 143
- "Trash Folder" on page 143
- "Shared Folders" on page 143

User Folder

Your user folder (indicated by your name) represents your GroupWise database. All folders in you Main Window are subfolders of your user folder.

Mailbox Folder

The Mailbox displays all the items you have received, with the exception of scheduled items (appointments, tasks, and reminder notes) you have accepted or declined. Accepted scheduled items are moved to the Calendar.

Sent Items Folder

The Sent Items folder displays all sent items from the Mailbox and Calendar. The Sent Items folder in versions prior to GroupWise 6.5 was a query folder, which had some differences from the current Sent Items folder.

The following is a comparison between the previous Sent Items query folder and the current Sent Items folder.

Table 5-1 *Comparison Between Sent Items Query Folder and Sent Items Folder*

Sent Items Folder (Current)	Sent Items Query Folder (Previous)
All sent items reside in this folder unless they are moved to a folder other than the Mailbox or Calendar. If a sent item is moved to another folder, it no longer displays in the Sent Items folder.	No items actually reside in this folder. This folder is a Find Results folder, which means a Find is performed when you click the folder and the results of the Find (all sent items) are displayed in the folder. If you delete an item from this folder, the original item remains in its original folder and redisplays the next time you open this folder.

Sent Items Folder (Current)	Sent Items Query Folder (Previous)
You can resend, reschedule, and retract sent items from this folder.	You can resend, reschedule, and retract sent items from this folder.

Calendar Folder

The Calendar folder shows several calendar view options.

Contacts Folder

The Contacts folder, by default, represents the Frequent Contacts address book in the Address Book. Any modification you make in the Contacts Folder is also made in the Frequent Contacts address book.

From this folder, you can view, create and modify contacts, resources, organizations and groups.

Your proxies never see your Contacts folder.

Checklist Folder

Use the Checklist folder to create a task list. You can move any items (mail messages, phone messages, reminder notes, tasks, or appointments) to this folder and arrange them in the order you want. Each item is marked with a check box so that you can check items off as you complete them.

The following is a comparison between the Checklist folder and the Task List query folder (found in previous versions of GroupWise).

Table 5-2 *Comparison Between Checklist Folder and Task List Folder*

Checklist Folder	Task List Folder
This folder contains the following items: ◆ Items you have moved to this folder ◆ Items you have posted to this folder ◆ Items that are part of a checklist that you have created in another folder	No items actually reside in this folder. This folder is a Find Results folder, which means a Find is performed when you click the folder and the results of the Find (all scheduled tasks) are displayed in the folder. If you delete an item from this folder, the original item remains in its original folder and redisplays the next time you open this folder.
Any item type can reside in this folder.	Only tasks show in this folder. Tasks are scheduled items that are associated with a due date.
To mark an item completed, click the check box next to the item in the Item List.	To mark an item completed, open the item, then click Completed. Due dates are set by the person who sent you the task. If you post a task for yourself, you can set a due date. To set the priority of an item, open the item, then type a priority in the Priority field.
Checklist items do not display in the Task List of the Calendar.	Tasks display in the Task List of the Calendar and can be marked Completed from the Calendar.

Checklist Folder	Task List Folder
	Tasks that are past due show as red in the Calendar.

Documents Folder

Your document references are organized in the Documents folder so you can locate them easily.

The Documents folder can contain only documents. If any other type of item is moved to this folder by a GroupWise client older than version 5.5, the item is deleted.

Cabinet Folder

The Cabinet contains all your personal folders. You can rearrange and nest folders by clicking *Edit* > *Folders*. You can change how the folders are sorted by right-clicking the *Cabinet* folder, clicking *Properties*, then selecting what you want to sort by.

Junk Mail Folder

All e-mail items from addresses and Internet domains that are junked through Junk Mail Handling are placed in the Junk Mail folder. This folder is not created in the folder list unless a Junk Mail option is enabled.

While Junk Mail options are enabled, this folder cannot be deleted. However, the folder can be renamed or moved to a different location in the folder list. If all Junk Mail options are disabled, the folder can be deleted. The folder can also be deleted if the Junk Mail Handling feature is disabled by the system administrator.

To delete items from the Junk Mail Folder, right-click the folder, click *Empty Junk Mail Folder*, then click Yes.

Trash Folder

All deleted mail and phone messages, appointments, tasks, documents, and reminder notes are stored in the Trash folder. Items in the Trash can be viewed, opened, or returned to your Mailbox before the Trash is emptied. (Emptying the Trash removes items in the Trash from the system.)

You can empty your entire Trash, or empty only selected items. Items in the Trash are automatically emptied according to the number days entered in the Cleanup tab in Environment Options, or you can empty the Trash manually. The system administrator might specify that your Trash is emptied automatically on a regular basis.

Shared Folders

A shared folder is like any other folder in your Cabinet, except other people have access to it. You can create shared folders or share existing personal folders in your Cabinet. You choose whom to share the folder with, and what rights to grant each user. Then, users can post messages to the shared folder, drag existing items into the folder, and create discussion threads. You can't share system folders, which include the Cabinet, Trash, and Work In Progress folders.

5.1.4 Item List

The Item List on the right side of the Main Window displays your mail and phone messages, appointments, reminder notes, tasks, and document references. You can sort the Item List by clicking a column heading. To reverse the sort order, click the column heading a second time. For information about the icons used with different items, see “Icons Appearing Next to Items in Your Mailbox and Calendar” on page 145.

5.1.5 QuickViewer

The QuickViewer opens below the Folder and Item List. You can quickly scan items and their attachments in the QuickViewer rather than open each item in another window.

5.2 Using Different GroupWise Modes

GroupWise provides two different ways to run the GroupWise client: Online mode and Caching mode.

You might be able to run GroupWise in either mode, or your system administrator might require that you use only a certain mode.

Most GroupWise features are available in all both GroupWise modes, with some exceptions. Subscribing to other users’ notifications is not available in Caching mode.

5.2.1 Online Mode

When you use Online mode, you are connected to your post office on the network. Your mailbox displays the messages and information stored in your network mailbox (also called your Online Mailbox). Online mode is connected to your network mailbox continuously. In Online mode, if your Post Office Agent shuts down or you lose your network connection, you temporarily lose your connection to your mailbox.

You should use this mode if you do not have a lot of network traffic, or if you use several different workstations and do not want to download a local mailbox to each one.

5.2.2 Caching Mode

Caching mode stores a copy of your network mailbox, including your messages and other information, on your local drive. This allows you to use GroupWise whether or not your network or Post Office Agent is available. Because you are not connected to the network all the time, this mode cuts down on network traffic and has the best performance. A connection is made automatically to retrieve and send new messages. All updates are performed in the background so your work is not interrupted.

To use Caching mode, the client installation must be a standard installation, not a workstation installation.

You should use this mode if you have enough disk space on your local drive to store your mailbox.

Several users can set up their Caching Mailboxes on a single shared computer.

5.3 Understanding Your Mailbox

All of your items, whether you send or receive them, are stored in your GroupWise Mailbox. You can quickly display only received items, sent items, posted items, or draft items by clicking a setting on the Display drop-down list. You can further restrict which items display in your Mailbox by using filters.

You can organize your messages by moving them into folders within your Cabinet, and you can create new folders as necessary.

5.3.1 Bolded Items in Your Mailbox

All unopened items in your Mailbox are bolded to help you easily identify which items and documents you have not yet read. The icon appearing next to an item also indicates if it is unopened.

Sent items are also bolded to show when they are queued but not uploaded, status information has not been received about the item being delivered, or they have not yet been transferred to the Internet.

5.3.2 Icons Appearing Next to Items in Your Mailbox and Calendar

The icons that appear next to items in your Mailbox and Calendar show information about the items. The following table explains what each icon means.

Table 5-3 *Icon Descriptions*

Icon	Description
	Next to an item you have sent in Caching mode, the icon indicates that the item has been queued, but the queue has not been uploaded. After the item has been uploaded, this icon indicates that status information has not been received about the item being delivered to the destination post office or transferred to the Internet. Next to the Sent Items folder, the icon indicates that there is at least one item that has been queued but has not been uploaded.
	Appears next to an item you have sent. If the item has been opened by at least one person, this icon appears until all recipients have 1) opened the mail, phone message, or reminder note; 2) accepted the appointment; or 3) completed the task.
	Appears next to an item you have sent. The item couldn't be delivered to the destination post office or it failed to transfer to the Internet.
	Appears next to an item you have sent. Next to an appointment or task, this icon indicates that at least one person has declined/deleted the item. Next to a mail message, phone message, or reminder note, this icon indicates that at least one person has deleted the item without opening it.
	One or more attachments are included with the item.
	One or more sound annotations are included with the item, or the item is a voice mail message.
	Draft item.

Icon	Description
	Appears next to an item you have sent.
	Appears next to an item you have replied to.
	Appears next to an item you have forwarded.
	Appears next to an item you have delegated.
	Appears next to an item you have replied to and forwarded
	Appears next to an item you have replied to and delegated.
	Appears next to an item you have forwarded and delegated.
	Appears next to an item you have replied to, forwarded, and delegated
	Posted item.
	Specific version of a document.
	Official version of a document.
	Unopened mail message with a low, standard, or high priority.
	Opened mail message with a low, standard, or high priority.
	Unopened appointment with a low, standard, or high priority.
	Opened appointment with a low, standard, or high priority.
	Unopened task with a low, standard, or high priority.
	Opened task with a low, standard, or high priority.
	Unopened reminder note with a low, standard, or high priority.
	Opened reminder note with a low, standard, or high priority.
	Unopened phone message with a low, standard, or high priority.
	Opened phone message with a low, standard, or high priority.
	The sender has requested that you reply to this item. The item can be a low, standard, or high priority.
	Appears in a Busy Search. If it appears to the left of a username or resource, you can click a scheduled time across from the username or resource on the Individual Schedules tab to display more information about the appointment in the box below. However, the user or resource owner must give you appointment Read rights in the Access List before this icon appears.
	Appears on your Calendar, indicates an alarm is set for the item.
	Appears on your Calendar, indicates the item is a group appointment, reminder note, or task.
	Appears on your Calendar, indicates the item is marked private.
	Appears on your Calendar, indicates that you declined the item but didn't delete it.

5.4 Using the Toolbar

Use the toolbar to access many of the features and options found in GroupWise. The toolbar at the top of a folder or item is context sensitive; it changes to provide the options you need most in that location.

5.5 Using Shortcut Keys

You can use a number of shortcut keys in GroupWise for accessibility or to save time when you perform various operations. The table below lists some of these keystrokes, what they do, and the context where they work.

Table 5-4 *Shortcut Keys*

Keystroke	Action	Where It Works
F1	Open online help	Main Window, Calendar, item, dialog box
F2	Search for text.	In an item
F5	Refresh the view	Main Window, Calendar
F7	Opens the Spell Checker	In an item
F8	Mark the selected item private	Item List
F9	Open the font dialog box	In an item
Ctrl+A	Select all items; select all text	Item List; text
Ctrl+B	Bold text	In text
Ctrl+C	Copy selected text	In text
Ctrl+F	Open the Find dialog box	Main Window, Calendar, item, dialog box
Ctrl+G	Go to today's date	Calendar
Ctrl+I	Italicize text	In text
Ctrl+L	Attach a file to a message	In an item
Ctrl+M	Open a new mail message	Main Window, Calendar, item, dialog box
Ctrl+O	Open the selected message	Item List
Ctrl+P	Open the Print dialog box	Main Window, item
Ctrl+Q	Turn the QuickViewer on and off	Main Window, Calendar
Ctrl+R	Mark the selected item unread	Item List
Ctrl+S	Save a draft in the Work in Progress folder	In an item
Ctrl+U	Underline text	In text
Ctrl+V	Paste selected text	In text
Ctrl+X	Cut selected text	In text

Keystroke	Action	Where It Works
Ctrl+Z	Undo the last action	In text
Ctrl+Up-arrow	Opens the previous or next item	In an item
or		
Ctrl+Down-arrow		
Ctrl+Shift+Left-arrow	Select text one word at a time	In text
or		
Ctrl+Shift+Right-arrow		
Ctrl+Shift+A	Open a new appointment	Main Window, Calendar, item, dialog box
Ctrl+Shift+T	Open a new task	Main Window, Calendar, item, dialog box
Ctrl+Shift+R	Open a new reminder note	Main Window, Calendar, item, dialog box
Ctrl+Shift+P	Open a new phone message	Main Window, Calendar, item, dialog box
Alt+F4	From the Main Window or Calendar, exit GroupWise.	Main Window, Calendar, item, dialog box
	From an item, exit the item.	
	From a dialog box, exit the dialog box.	
Alt + [letter]	Activate the menu bar (Use the underlined letters in the menu names)	Main Window, Calendar, item
Alt+D	Send item	In a new item
Alt+S	Send item	In a new item
Alt+Enter	Display the properties of the selected item	Item List
Alt+Del	Delete an item	In an item
Shift+Left-arrow	Select text one character at a time	In text
or		
Shift+Right-arrow		
Shift+End	Select text to the end or beginning of a line	In text
or		
Shift+Home		
Shift + [letter]	In the Folder List, Shift + the first letter of a subfolder name goes to the subfolder.	Folder list
Tab	Cycle through fields, buttons, and areas	Main Window, Calendar, dialog box, item

Keystroke	Action	Where It Works
Shift+Tab	Reverse the order of cycling through fields, buttons, and areas	Main Window, Calendar, dialog box, item
Ctrl+Tab	In text, indent the text. In a tabbed dialog box, open the next tab.	In text, dialog box
Alt+Up Arrow	Zooms in the message body of an item.	In an item
Alt+Down Arrow	Zooms out the message body of an item.	In an item

5.6 Learning More

You can learn more about GroupWise from the following resources:

- "Online Help" on page 149
- "GroupWise 7 Documentation Web Page" on page 149
- "GroupWise Cool Solutions Web Community" on page 149

5.6.1 Online Help

Complete user documentation is available in Help. In the Main Window, click *Help* > *Help Topics*, then use the Contents tab, Index tab, or Search tab to locate the help topics you want.

5.6.2 GroupWise 7 Documentation Web Page

For the latest version of the GroupWise user guide and for extensive GroupWise administration documentation, go to the GroupWise 7 area on the Novell Documentation Web site (http://www.novell.com/documentation/gw7).

This user guide is also available from the GroupWise client by clicking *Help* > *User Guide*.

5.6.3 GroupWise Cool Solutions Web Community

At GroupWise Cool Solutions, you'll find tips, tricks, feature articles, and answers to frequent questions. In the Main Window, click *Help* > *Cool Solutions Web Community* or go to http://www.novell.com/coolsolutions/gwmag (http://www.novell.com/coolsolutions/gwmag).

Instant Messaging with Gaim

6

Use Gaim to use all of your instant messaging accounts from a single instant messaging client. Gaim supports all of the most popular instant messaging protocols, so you can log in to all of your accounts at once and chat live with your contacts in one tabbed interface, regardless of which IM system they use.

This chapter explains the Gaim options you need to know about to set up Gaim and communicate with your contacts. It does not explain all of Gaim's features and options. For more information, open Gaim, then click *Help* > *Online Help* or press F1.

- Section 6.1, "Supported Protocols," on page 151
- Section 6.2, "Setting Up an Account," on page 152
- Section 6.3, "Managing Your Buddy List," on page 152
- Section 6.4, "Chatting," on page 153

6.1 Supported Protocols

Gaim supports the following instant messaging protocols:

- AIM/ICQ
- Gadu-Gadu
- GroupWise
- IRC
- Jabber
- MSN
- Napster
- Yahoo
- Zephyr

6.2 Setting Up an Account

To use Gaim, you must already have accounts on the systems you want to use. For example, to use Gaim for your AIM account, you must first have an AIM account. Once you have those accounts, set them up in the Gaim *Add Account* dialog.

1. Start Gaim by clicking *Computer* > *More Applications* > *Communicate* > *Gaim*.

2. Click *Accounts* > *Add* to open the *Add Account* dialog.

   The first time you run Gaim, or any subsequent times you start Gaim when you don't have any accounts set up, the *Add Account* dialog opens automatically.

3. Choose the protocol you want to set up.

   The *Add Account* dialog differs for each protocol, depending on what setup options are available for that protocol.

4. Enter the setup options for the chosen protocol.

   Typical options include your account name and password. Your protocol might support additional options, such as a buddy icon, alias, login options, or others.

5. Click *Save*.

6. Repeat Steps 2 to 5 for each additional protocol.

Once an account is added, you can log in to that account by entering your account name and password in the Gaim *Login* dialog.

6.3 Managing Your Buddy List

Use the Buddy List to manage your contacts, also known as buddies. You can add and remove buddies from your Buddy List, and you can organize your buddies in groups so they are easy to find.

6.3.1 Displaying Buddies in the Buddy List

Once your accounts are set up, all buddies who are online appear in your Buddy List. If you also want your buddies who are not online to appear in the Buddy List, click *Buddies* > *Show Offline Buddies*.

6.3.2 Adding a Buddy

To add a buddy to your Buddy List, click *Buddies* > *Add Buddy*, then enter the information about that buddy.

NOTE: For some protocols, you cannot add a buddy in the Gaim interface. You must use the client for those protocols if you want to add to your buddy list. After you have added a buddy in the protocol's client, that buddy appears in your Gaim Buddy List.

6.3.3 Removing a Buddy

To remove a buddy, right-click on that buddy's name in the Buddy List, then click *Remove*.

6.4 Chatting

To open a chat session, double-click a buddy name in the Buddy List. The Chat screen opens. Type your message, then press *Enter* to send it.

Each chat session you open appears as a tab in the Chat screen. Click on a buddy's tab to chat with that buddy. Close a chat session by closing the tab for that buddy.

Using Voice over Internet Protocol 7

Voice over Internet Protocol (VoIP) lets you make phone calls using a broadband Internet connection instead of a regular (analog) phone line. SUSE® Linux* Enterprise Desktop provides the following VoIP applications:

- Ekiga
- Linphone

7.1 Using Voice over IP with Ekiga

Modern telecommunication means far more than just making a phone call. It is also about exchanging text messages and sometimes even video conferencing. Roaming enables you to be reachable under one phone number all across the world. Ekiga brings these features to your Linux desktop, allowing you to communicate over broadband Internet.

Before you start, make sure the following requirements are met:

- ❑ Your sound card is properly configured.
- ❑ A headset or a microphone and speakers are attached to your computer.
- ❑ For dialing in to regular phone networks, a SIP account is required. For a list of providers, see the VoIP Providers List (http://www.voipproviderslist.com/). Free trials are provided by the VoIP Buster (http://www.voipbuster.com).
- ❑ For video conferencing, a Web cam is connected to your computer.

7.1.1 Configuring Ekiga

On first start, Ekiga opens a configuration assistant that requests all data needed to configure your instance of Ekiga. To configure Ekiga, proceed as follows:

1. Start Ekiga by clicking *Computer* > *More Applications* > *Communicate* > *Ekiga Softphone*.
2. Click *Forward*, enter your first name and surname, then click *Forward*.
3. Enter your `ekiga.net` account data or choose not to sign up to ekiga.net (http://ekiga.net).

   To add other accounts later on, configure them using *Edit* > *Accounts*.
4. Click *Forward*, select a connection type, then click *Forward*.
5. Determine the type of firewall you will use to enable you to perform calls with Ekiga, then click *Forward*.
6. Choose the audio manager to use, then click *Forward*.
7. Choose the audio input and output devices, click *Test Settings* to test your settings, then click *Forward*.
8. Accept the video manager selection, *V4L*, then click *Forward*.
9. Choose the video input device and test your settings, then click *Forward*.
10. View the summary of your settings, then click *Apply*.

Ekiga allows you to maintain multiple accounts. To configure an additional account, proceed as follows:

1. Click *Computer* > *More Applications* > *Communicate* > *Ekiga Softphone*.
2. Open *Edit* > *Accounts*, then click *Add*.
3. Type an *Account Name*.
4. Select an appropriate *Protocol* depending on what type of account you use.

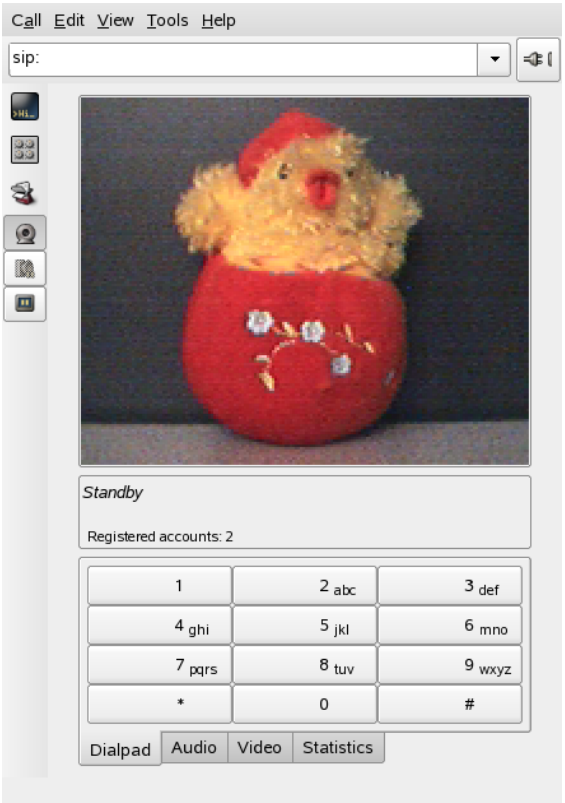
   Normally, you would select *SIP* here.
5. Type a *Registrar*, *User,* and *Password* according to the data provided by your provider.
6. Click *OK* to activate the account.

   The status of your account displayed in the Ekiga main window changes to *Registered*.

7.1.2 The Ekiga User Interface

All functions of Ekiga are available via the menu bar. Shortcuts to the most important functions are provided by means of a toolbar to the left and by special key combinations.

Figure 7-1 *Ekiga User Interface*



The user interface has different modes. To switch between views, use *View* > *View Mode* and *View* > *Control Panel* or select the view mode icon on the left side of the GUI and the different tabs at the bottom. The *Full View* is shown in Figure 7-1. All icons in the toolbar provide a tool tip that is activated by the mouse pointer hovering over the icon.

At the bottom of the user interface, several tabs provide the functionality for *Dialpad*, *Audio*, *Video*, and *Statistics*. Some settings like the *Audio* settings may only be changed during a phone call.

Many of functions of Ekiga are available with keyboard shortcuts. Table 7-1 summarizes the most important ones.

Table 7-1 *Keyboard Shortcuts for Ekiga*

Ctrl Sequence	Description
Ctrl+O	Initiate a call with the current number.
Ctrl+D	Hang up.
Ctrl+G	Hold the current call.
Ctrl+T	Transfer the current call to another party.
Ctrl+S	Save the current picture to hard disk.
Ctrl+W	Close the Ekiga user interface.
Ctrl+Q	Quit Ekiga.
Ctrl+E	Start the Accounts manager.
Ctrl+P	Open the *Ekiga Preferences* overview. This dialog allows you to do some fine-tuning to your Ekiga settings.
Ctrl++	Zoom in to the picture of the Web cam.
Ctrl+-	Zoom out or the picture of the Web cam.
Ctrl+=	Return to the normal size of the Web cam display.
Ctrl+F	Use full screen for the Web cam.
Ctrl+H	Display the history of your calls.

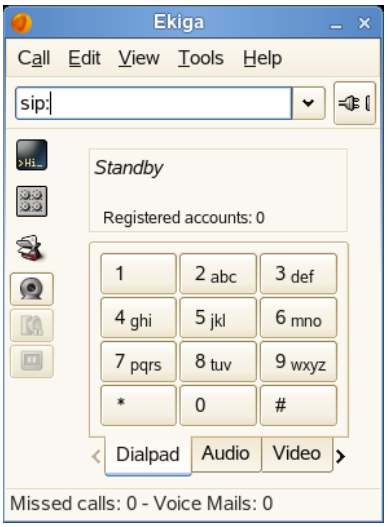
7.1.3 Making a Call

After Ekiga is configured appropriately, making a call is straightforward.

1. Click *Computer* > *More Applications* > *Communicate* > *Ekiga Softphone*.
2. Enter the SIP address of the other party at the *SIP address* prompt.

   The address should look like `sip:username@domainname` or `username@hostname` for direct local calls or like `username@sipserver` or `userid@sipserver` for proxied

calls or calls using the service of a SIP provider. If you have a SIP provider that accepts real phone calls, you can enter the number like `sip:<call number>`



3. Click the Call button to the right of the *SIP address* prompt (or type Ctrl+O), then wait for the other party to pick up the phone.
4. To end the call, click *Hang up* or type Ctrl+D.

If you need to tweak the sound parameters during a call, click *View* > *View Mode* > *Full View* to show four tabs holding more options. The second one holds the *Audio* options for *Playback level* and *Recording level*. Use the sliders to adjust both volumes to fit your needs.

7.1.4 Answering a Call

Ekiga can receive calls in two different ways. First, the user can be called directly with `sip:user@host`. Alternatively, make your calls via a SIP provider. Most SIP providers enable you to get calls from a normal land line to your VoIP account. Depending on the mode in which Ekiga is run, there are several ways in which you would notice an incoming call:

Normal Application

Incoming calls can only be received and answered if Ekiga is already running. You hear the ring sound on your headset or your speakers. If Ekiga is not running, the call cannot be received.

Panel Applet

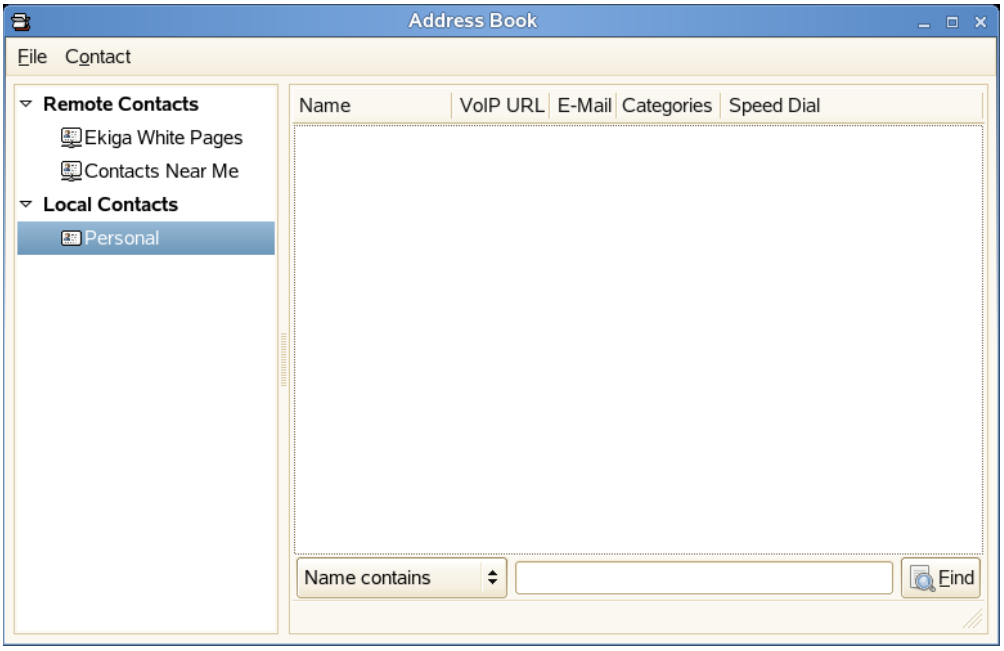
Normally, the Ekiga panel applet would run silently without giving any notice of its existence. This changes as soon as a call comes in. The main window of Ekiga opens and you hear a ring sound on your headset or speakers.

When you notice an incoming call, click *Accept* to pick up the phone and start talking. If you do not want to accept this call, click *Reject*. It is also possible to transfer the call to another SIP address.

7.1.5 Using the Address Book

Ekiga offers to manage your SIP contacts. To open the address book, click *Tools* > *Address Book* in the Ekiga main window. An empty list window opens.

Figure 7-2 *Ekiga Address Book*



To add a contact, select *Personal*, right-click the address window, then select *New Contact*. You can also press *Ctrl* > *N*.

The following entries are required for a valid contact:

Name

Enter the name of your contact. This can be a full name, but you can also use a nickname here.

SIP Address

Enter a valid SIP address for your contact.

Email

Enter the e-mail address of your contact for your own reference.

Speed Dial

With a `Speed Dial`, you can access often used numbers more easily. This is optional.

Categories

If desired, add your own categories if you have many different contacts.

Local Address Book

By default, you have a local address book with the name *Personal* available. If you need more address books, click *File* > *New Address Book* or use the keyboard shortcut Ctrl+B to create them.

To call any contact from the address book, double-click this contact with the mouse. The call will be directly initiated.

7.1.6 For More Information

The official home page of Ekiga is http://www.ekiga.org/ (http://www.ekiga.org/). This site offers frequently asked questions as well as a more detailed documentation.

For information about the support of the H323 teleconferencing protocol in Linux, see http://www.openh323.org/ (http://www.openh323.org/).This is also a good starting point when searching for projects supporting VoIP.

To set up a private telephone network, you might be interested in the PBX software Asterisk (http://www.asterisk.org/). For more information about this project, see http://www.voip-info.org/wiki-Asterisk (http://www.voip-info.org/wiki-Asterisk).

7.2 Using Voice over IP with Linphone

Linphone is a small Web phone application for your Linux desktop. It allows you to make two-party calls over the Internet. There is no need for special hardware items: a standard workstation with a properly configured sound card, microphone, and speakers or headphones is all you need to get started with Linphone.

7.2.1 Configuring Linphone

Before you start using Linphone there are some basic decisions to make and some configuration tasks to complete. First, determine and configure the run mode of Linphone, determine the connection type to use, then start the Linphone configuration (*Go* > *Preferences*) to make the necessary adjustments.

Determining the Run Mode of Linphone

Linphone can be run in two different modes, depending on the type of desktop you run and on its configuration.

Normal Application

After the Linphone software has been installed, it can be started via the GNOME and KDE application menus or via the command line. When Linphone is not running, incoming calls cannot be received.

GNOME Panel Applet

Linphone can be added to the GNOME panel. Right-click an empty area in the panel, select *Add to Panel*, and select Linphone. Linphone is then permanently added to the panel and automatically started on login. As long as you do not receive any incoming calls, it runs in the background. As soon as you get an incoming call, the main window opens and you can receive the call. To open the main window to call someone, just click the applet icon.

Determining the Connection Type

There are several different ways to make a call in Linphone. How you make a call and how you reach the other party is determined by the way you are connected to the network or the Internet.

Linphone uses the session initiation protocol (SIP) to establish a connection with a remote host. In SIP, each party is identified by a SIP URL:

`sip:username@hostname`

username is your login on your Linux machine and *hostname* the name of the computer you are using. If you use a SIP provider, the URL would look like the following example:

`sip:username@sipserver`

username is the username chosen when registering at a SIP server. *sipserver* is the address of the SIP server or your SIP provider. For details on the registration procedure, refer to "Configuring the SIP Options" on page 162 and check the provider's registration documentation. For a list of providers suitable for your purpose, check the Web pages mentioned in "For More Information" on page 167.

The URL to use is determined by the type of connection you choose. If you chose to call another party directly without any further routing by a SIP provider, you would enter a URL of the first type. If you chose to call another party via a SIP server, you would enter a URL of the second type.

Calling in the Same Network

If you intend to call a friend or coworker belonging to the same network, you just need the correct username and hostname to create a valid SIP URL. The same applies if this person wants to call you. As long as there is no firewall between you and the other party, no further configuration is required.

Calling across Networks or the Internet (Static IP Setup)

If you are connected to the Internet using a static IP address, anyone who wants to call you just needs your username and the hostname or IP address of your workstation to create a valid SIP URL, as described in "Calling in the Same Network" on page 161. If you or the calling party are located behind a firewall that filters incoming and outgoing traffic, open the SIP port (`5060`) and the RTP port (`7078`) on the firewall machine to enable Linphone traffic across the firewall.

Calling across Networks or the Internet (Dynamic IP Setup)

If your IP setup is not static—if you dynamically get a new IP address every time you connect to the Internet—it is impossible for any caller to create a valid SIP URL based on your username and an IP address. In these cases, either use the services offered by a SIP provider or use a DynDNS setup to make sure that an external caller gets connected to the right host machine. More information about DynDNS can be found at http://en.wikipedia.org/wiki/Dynamic_DNS (http://en.wikipedia.org/wiki/Dynamic_DNS).

Calling across Networks and Firewalls

Machines hidden behind a firewall do not reveal their IP address over the Internet. Thus, they cannot be reached directly from anyone trying to call a user working at such a machine. Linphone supports calling across network borders and firewalls by using a SIP proxy or relaying the calls to a SIP provider. Refer to "Configuring the SIP Options" on page 162 for a detailed description of the necessary adjustments for using an external SIP server.

Configuring the Network Parameters

Most of the settings contained in the *Network* tab do not need any further adjustments. You should be able to make your first call without changing them.

NAT Traversal Options

Enable this option only if you find yourself in a private network behind a firewall and if you do not use a SIP provider to route your calls. Select the check box and enter the IP address of the firewall machine in dot notation, for example, `192.168.34.166`.

RTP Properties

Linphone uses the real-time transport protocol (RTP) to transmit the audio data of your calls. The port for RTP is set to `7078` and should not be modified, unless you have another application using this port. The jitter compensation parameter is used to control the number of audio packages Linphone buffers before actually playing them. By increasing this parameter, you improve the quality of transmission. The more packages buffered, the greater a chance for "late comers" to be played back. On the other hand increasing the number of buffered packages also increases the latency—you hear the voice of your counterpart with a certain delay. When changing this parameter, carefully balance these two factors.

Other

If you use a combination of VoIP and landline telephony, you might want to use the dual tone multiplexed frequency (DTMF) technology to trigger certain actions, like a remote check of your voice mail just by punching certain keys. Linphone supports two protocols for DTMF transmission, SIP INFO and RTP rfc2833. If you need DTMF functionality in Linphone, choose a SIP provider that supports one of these protocols. For a comprehensive list of VoIP providers, refer to "For More Information" on page 167.

Configuring the Sound Device

Once your sound card has been properly detected by Linux, Linphone automatically uses the detected device as the default sound device. Leave the value of *Use sound device* as it is. Use *Recording source* to determine which recording source should be used. In most cases, this would be a microphone (`micro`). To select a custom ring sound, use *Browse* to choose one and test your choice using *Listen*. Click *Apply* to accept your changes.

Configuring the SIP Options

The *SIP* dialog contains all SIP configuration settings.

SIP Port

Determine on which port the SIP user agent should run. The default port for SIP is `5060`. Leave the default setting unchanged unless you know of any other application or protocol that needs this port.

Identity

Anyone who wants to call you directly without using a SIP proxy or a SIP provider needs to know your valid SIP address. Linphone creates a valid SIP address for you.

Remote Services

This list holds one or more SIP service providers where you have created a user account. Server information can be added, modified, or deleted at any time. See "Adding a SIP Proxy and Registering at a Remote SIP Server" on page 163 to learn about the registration procedure.

Authentication Information

To register at a remote SIP server, provide certain authentication data, such as a password and username. Linphone stores this data once provided. To discard this data for security reasons, click *Clear all stored authentication data*.

The *Remote services* list can be filled with several addresses of remote SIP proxies or service providers.

Adding a SIP Proxy and Registering at a Remote SIP Server

1. Choose a suitable SIP provider and create a user account there.
2. Start Linphone.
3. Go to *Go* > *Preferences* > *SIP*.
4. Click *Add proxy/registrar* to open a registration form.
5. Fill in the appropriate values for *Registration Period*, *SIP Identity*, *SIP Proxy* and *Route*. If working from behind a firewall, always select *Send registration* and enter an appropriate value for *Registration Period*. This resends the original registration data after a given time to keep the firewall open at the ports needed by Linphone. Otherwise, these ports would automatically be closed if the firewall did not receive any more packages of this type. Resending the registration data is also needed to keep the SIP server informed about the current status of the connection and the location of the caller. For *SIP identity*, enter the SIP URL that should be used for local calls. To use this server also as a SIP proxy, enter the same data for *SIP Proxy*. Finally, add an optional route, if needed, and leave the dialog with *OK*.

Configuring the Audio Codecs

Linphone supports a several codecs for the transmission of voice data. Set your connection type and choose your preferred codecs from the list window. Codecs not suitable for your current connection type are red and cannot be selected.

7.2.2 Testing Linphone

Check your Linphone configuration using `sipomatic`, a small test program that can answer calls made from Linphone.

Testing a Linphone Setup

1. Open a terminal.
2. Enter `sipomatic` at the command line prompt.
3. Start Linphone.
4. Enter `sip:robot@127.0.0.1:5064` as *SIP address* and click *Call or Answer*.
5. If Linphone is configured correctly, you will hear a phone ringing and, after a short while, you will hear a short announcement.

If you successfully completed this procedure, you can be sure that your audio setup and the network setup are working. If this test fails, check whether your sound device is correctly configured and whether the playback level is set to a reasonable value. If you still fail to hear anything, check the network setup including the port numbers for SIP and RTP. If any other application or protocol uses the defaults ports for these as proposed by Linphone, consider changing ports and retry.

7.2.3 Making a Call

Once Linphone is configured appropriately, making a call is straightforward. Depending on the type of call (see "Determining the Connection Type" on page 160 for reference), the calling procedures differ slightly.

1. Start Linphone using the menu or a command line.
2. Enter the SIP address of the other party at the *SIP address* prompt. The address should look like `sip:username@domainname` or `username@hostname` for direct local calls or like `username@sipserver` or `userid@sipserver` for proxied calls or calls using the service of a SIP provider.
3. If using a SIP service provider or a proxy, select the appropriate proxy or provider from *Proxy to use* and provide the authentication data requested by this proxy.
4. Click *Call or Answer* and wait for the other party to pick up the phone.
5. Once you are done or wish to end the call, click *Release or Refuse* and leave Linphone.

If you need to tweak the sound parameters during a call, click *Show more* to show four tabs holding more options. The first one holds the *Sound* options for *Playback level* and *Recording level*. Use the sliders to adjust both volumes to fit your needs.

The *Presence* tab lets you set your online status. This information can be relayed to anyone who tries to contact you. If you are permanently away and wish to inform the calling party of this fact, just check *Away*. If you are just busy, but want the calling party to retry, check *Busy, I'll be back in... min* and specify how long you will not be reachable. Once you are reachable again, set the status back to the default (*Reachable*). Whether another party can check your online status is determined by the *Subscribe Policy* set in the address book, as described in "Using the Address Book" on page 165. If any party listed in your address book published their online status, you can monitor it using the *My online friends* tab.

The *DTMF* tab can be used to enter DTMF codes for checking voice mail. To check your voice mail, enter the appropriate SIP address and use the keypad in the *DTMF* tab to enter the voice mail code. Finally, click *Call or Answer* as if you were making an ordinary call.

7.2.4 Answering a Call

Depending on the run mode selected for Linphone, there are several ways you would notice an incoming call:

Normal Application

Incoming calls can only be received and answered if Linphone is already running. You then hear the ring sound on your headset or your speakers. If Linphone is not running, the call cannot be received.

GNOME Panel Applet

Normally, the Linphone panel applet would run silently without giving any notice of its existence. This changes as soon as a call comes in: the main window of Linphone opens and you hear a ring sound on your headset or speakers.

Once you have noticed an incoming call, just click *Call or Answer* to pick up the phone and start talking. If you do not want to accept this call, click *Release of Refuse*.

7.2.5 Using the Address Book

Linphone offers to manage your SIP contacts. Start the address book with *Go > Address book*. An empty list window opens. Click *Add* to add a contact.

The following entries need to be made for a valid contact:

Name

Enter the name of your contact. This may be a full name, but you can also use a nickname here. Choose something you easily remember this person as. If you choose to see this person's online status, this name is shown in the *My online friends* tab of the main window.

SIP Address

Enter a valid SIP address for your contact.

Proxy to Use

If needed, enter the proxy to use for this particular connection. In most cases, this would just be the SIP address of the SIP server you use.

Subscribe Policy

Your subscribe policy determines whether your presence or absence can be tracked by others.

To call any contact from the address book, select this contact with the mouse, click *Select* to make the address appear in the address field of the main window, and start the call with *Call or Answer* as usual.

7.2.6 Troubleshooting

I try to call someone, but fail to establish a connection.

There are several reasons why a call could fail:

Your connection to the Internet is broken.

Because Liphone uses the Internet to relay your calls, make sure that your computer is properly connected to and configured for the Internet. This can easily be tested by trying to view a Web page using your browser. If the Internet connection works, the other party might not be reachable.

The person you are calling is not reachable.

If the other party refused your call, you would not be connected. If Linphone is not running on the other party's machine while you are calling, you will not be connected. If the other party's Internet connection is broken, you cannot make the connection.

My call seems to connect, but I cannot hear anything.

First, make sure that your sound device is properly configured. Do this by launching any other application using sound output, such as a media player. Make sure that Linphone has sufficient permissions to open this device. Close all other programs using the sound device to avoid resource conflicts.

If the above checks were successful, but you still fail to hear anything, raise the recording and playback levels under the *Sound* tab.

The voice output on both ends sounds strangely clipped.

Try to adjust the jitter buffer using *RTP properties* in *Preferences* > *Network* to compensate for delayed voice packages. When doing this, be aware that it increases the latency.

DTMF does not work.

You tried to check your voice mail using the DTMF pad, but the connection could not be established. There are three different protocols used for the transmission of DTMF data, but only two of these are supported by Linphone (SIP INFO and RTP rfc2833). Check with your provider whether it supports one of these. The default protocol used by Linphone is rfc2833, but if that fails you can set the protocol to SIP INFO in *Preferences* > *Network* > *Other*. If it does not work with either of them, DTMF transmission cannot be done using Linphone.

7.2.7 Glossary

Find some brief explanation of the most important technical terms and protocols mentioned in this document:

VoIP

VoIP stands for *voice over Internet protocol*. This technology allows the transmission of ordinary telephone calls over the Internet using packet-linked routes. The voice information is sent in discrete packets like any other data transmitted over the Internet via IP.

SIP

SIP stands for *session initiation protocol*. This protocol is used to establish media sessions over networks. In a Linphone context, SIP is the magic that triggers the ring at your counterpart's machine, starts the call, and also terminates it as soon as one of the partners decides to hang up. The actual transmission of voice data is handled by RTP.

RTP

RTP stands for *real-time transport protocol*. It allows the transport of media streams over networks and works over UDP. The data is transmitted by means of discrete packets that are numbered and carry a time stamp to allow correct sequencing and the detection of lost packages.

DTMF

A DTMF encoder, like a regular telephone, uses pairs of tones to represent the various keys. Each key is associated with a unique combination of one high and one low tone. A decoder then translates these touch-tone combinations back into numbers. Linphone supports DTMF signalling to trigger remote actions, such as checking voice mail.

codec

Codecs are algorithms specially designed to compress audio and video data.

jitter

Jitter is the variance of latency (delay) in a connection. Audio devices or connection-oriented systems, like ISDN or PSTN, need a continuous stream of data. To compensate for this, VoIP terminals and gateways implement a jitter buffer that collect the packets before relaying them onto their audio devices or connection-oriented lines (like ISDN). Increasing the size of the jitter buffer decreases the likelihood of data being missed, but the latency of the connection is increased.

7.2.8 For More Information

For general information about VoIP, check the VoIP Wiki at http://voip-info.org/tiki-index.php (http://voip-info.org/tiki-index.php). For a comprehensive list of providers offering VoIP services in your home country, refer to http://voip-info.org/wiki-VOIP+Service+Providers+Residential (http://voip-info.org/wiki-VOIP+Service+Providers+Residential).

Accessing Network Resources

8

From your desktop, you can access files and directories or certain services on remote hosts or make your own files and directories available to other users in your network. SUSE® Linux* Enterprise Desktop offers various different ways of accessing and creating network shared resources. This section covers the following information:

- Section 8.1, “General Notes on File Sharing and Network Browsing,” on page 169
- Section 8.2, “Accessing Network Shares,” on page 169
- Section 8.3, “Sharing Folders,” on page 170
- Section 8.4, “Managing Windows Files,” on page 171
- Section 8.5, “Configuring and Accessing a Windows Network Printer,” on page 172

8.1 General Notes on File Sharing and Network Browsing

Whether and to which extent you can use file sharing and network browsing on your machine and in your network highly depends on the network structure and on the configuration of your machine. Before setting up either of them, contact your system administrator to make sure that your network structure supports this feature and to check whether your company's security policies permit it.

Network browsing, be it SMB browsing for Windows shares or SLP browsing for remote services, relies heavily on the machine's ability to send broadcast messages to all clients in the network. These messages and the clients' replies to them enable your machine to detect any available shares or services. For broadcasts to work effectively, your machine must be part of the same subnet as all other machines it is querying. If network browsing does not work on your machine or the detected shares and services do not match with what you expected, contact your system administrator to make sure that you are connected to the appropriate subnet.

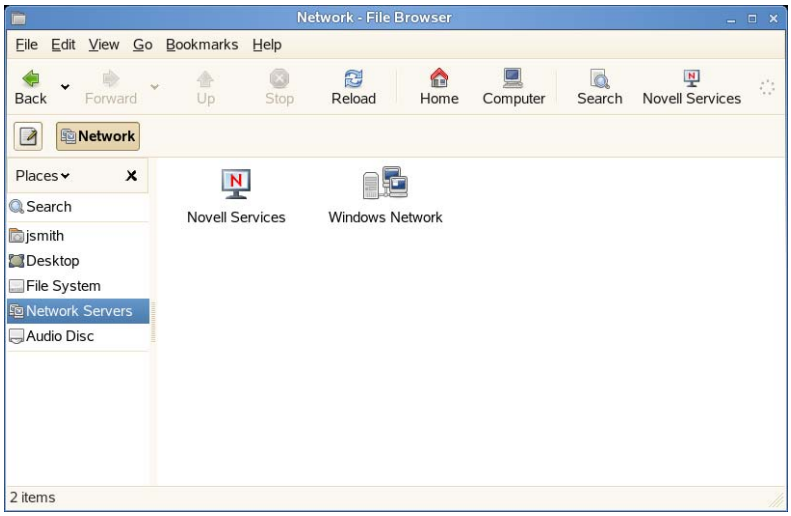
To allow network browsing, your machine needs to keep several network ports open to send and receive network messages that provide details on the network and the availability of shares and services. The standard SUSE Linux Enterprise Desktop is configured for tight security and has a firewall up and running that protects your machine against the Internet. To adjust the firewall configuration, you would either need to ask your system administrator to open a certain set of ports to the network or to tear down the firewall entirely according to your company's security policy. If you try to browse a network with a restrictive firewall running on your machine, Nautilus warns you about your security restrictions not allowing it to query the network.

8.2 Accessing Network Shares

Networking workstations can be set up to share folders. Typically, files and folders are marked to let remote users access them. These are called *network shares*. If your system is configured to access network shares, you can use your file manager to access these shares and browse them just as easily as if they were located on your local machine. Whether you have only read access or also write access to the shared folders depends on the permissions granted to you by the owner of the shares.

To access network shares, Open Nautilus and click *Network Servers*. Nautilus displays the networks that you can access. Click a network, then click the server. You might be required to authenticate to the server by providing a username and password.

Figure 8-1 *Network File Browser*



8.3 Sharing Folders

Sharing and exchanging documents is a must-have in corporate environments. Nautilus offers you file sharing, which makes your files and folders available to both Linux and Windows users.

8.3.1 Enabling Sharing on the Computer

Before you can share a folder, you must enable sharing on your computer. To enable sharing:

1. Click *Computer* > *More Applications* > *System* > *YaST*.
2. Enter the root password.
3. Click *Network Services*.
4. Click *Windows Domain Membership*.
5. Click *Allow Users to Share Their Directories*, then click *Finish*.

8.3.2 Enabling Sharing for a Folder

To configure file sharing for a folder:

1. Open Nautilus.

2 Right-click the window background or a folder, then select *Sharing Options* from the context menu.

3 Select *Share this folder*.

4 (Optional) If you want other people to be able to write to the folder, select *Allow other people to write in this folder*.

5 (Conditional) If the folder does not already have the permissions that are required for sharing, click *Add the permissions automatically*.

The folder icon changes to indicate that the folder is now shared.

IMPORTANT: Samba Domain Browsing

Samba domain browsing only works if your system's firewall is configured accordingly. Either disable the firewall entirely or assign the browsing interface to the internal firewall zone. Ask your system administrator about how to proceed.

8.4 Managing Windows Files

With your SUSE Linux Enterprise Desktop machine being an Active Directory client, you can browse, view, and manipulate data located on Windows servers. The following examples are just the most prominent ones:

Browsing Windows Files with Nautilus

Use Nautilus's network browsing features to browse your Windows data.

Viewing Windows Data with Nautilus

Use Nautilus to display the contents of your Windows user folder just as you would for displaying a Linux directory. Create new files and folders on the Windows server.

Manipulating Windows Data with GNOME Applications

Many GNOME applications allow you to open files on the Windows server, manipulate them, and save them back to the Windows server.

Single-Sign-On

GNOME applications, including Nautilus, support Single-Sign-On, which means that to access other Windows resources, such as Web servers, proxy servers, or groupware servers like MS

Exchange, you do not need to reauthenticate. Authentication against all these is handled silently in the background once you provided your username and password on login.

To access your Windows data using Nautilus, proceed as follows:

1. Open Nautilus and click *Network Servers*.
2. Click *Windows Network*.
3. Click the icon of the workgroup containing the computer you want to access.
4. Click the computer's icon (and authenticate, if prompted to do so), then navigate to the shared folder on that computer.

To create folders in your Windows user folder using Nautilus, proceed as you would when creating a Linux folder.

8.5 Configuring and Accessing a Windows Network Printer

Being part of a corporate network and authenticating against a Windows Active Directory server, you can access corporate resources, such as printers. GNOME allows you to configure printing from your Linux client to a Windows network printer.

To configure a Windows network printer for use through your Linux workstation, proceed as follows:

1. Start the GNOME Control Center from the main menu.
2. Select *Hardware* > *Printers*.
3. Select *New Printer*.

   Adding a printer requires root privileges, so you must enter the root password to continue.
4. Select *Network Printer*, then select *Windows Printer (SMB)* from the drop-down menu.
5. Enter or select the Windows host, the printer, and the username and password required to access the Windows computer, then click *Forward*.
6. Select the driver that most closely matches the printer, then click *Forward*.
7. Click *Apply*.

   The printer is ready for use.

To print to the Windows network printer configured above, select it from the list of available printers.

Searching with Beagle

9

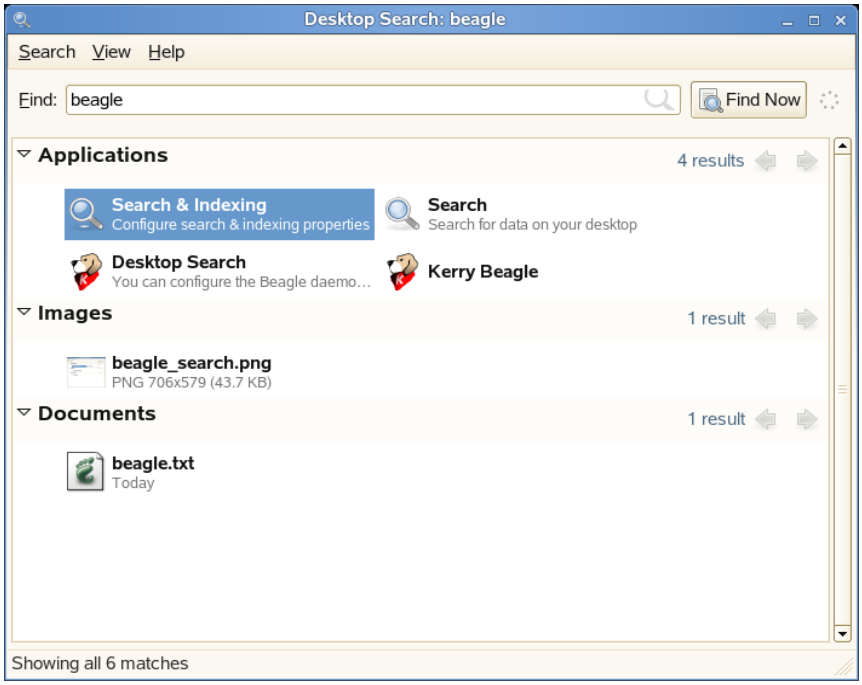
Beagle is a search tool that indexes your personal information space (normally your home directory) to find whatever you're looking for. Using Beagle, you can find documents, e-mails and attachments, Web history, IM/IRC conversations, address book contacts, calendar appointments, notes, source code, images, music and video files, archives and their contents, and applications.

- Section 9.1, “Using Beagle,” on page 173
- Section 9.2, “Search Tips,” on page 174
- Section 9.3, “Performing a Property Search,” on page 174
- Section 9.4, “Setting Search Preferences,” on page 175
- Section 9.5, “Indexing Other Directories,” on page 176
- Section 9.6, “Preventing Files and Directories from Being Indexed,” on page 177

9.1 Using Beagle

To use Beagle, click *Computer*, enter your search terms in the *Search* field, then press Enter. The results are displayed in the Desktop Search dialog box.

Figure 9-1 *Desktop Search Dialog Box*



You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item in the results list depend on the type of file it is. Clicking a file in the list displays a preview of the file and information such as the title, path, and date the file was last modified or accessed.

Use the *Search* menu to limit your search to files in a specific location, such as your address book or Web pages, or to display only a specific type of file in your results list. The *View* menu lets you sort the items in your results list according to name, relevance, or the date the file was last modified.

You can also access Desktop Search by clicking *Computer* > *More Applications* > *System* > *Search*.

9.2 Search Tips

- You can use both uppercase and lowercase letters in search terms. Searches are not case-sensitive by default.

  To perform a case-sensitive search, put double quotation marks (“) around the word you want to match exactly. For example, if you use “APPLE” in a search, apple will be ignored.
- To search for optional terms, use OR (for example, apples OR oranges).

  IMPORTANT: The OR is case-sensitive when used to indicate optional search terms.
- To exclude search terms, use a minus sign (-) in front of the term you want to exclude (for example, apples -oranges will find results containing apples but not oranges).
- To search for an exact phrase or word, put quotation marks (“) around the phrase or word.
- Common words such as “a,” “the,” and “is” are ignored.
- The base form of a search term is used when searching (for example, a search for “driving” will match “drive,” “drives,” and “driven”).

9.3 Performing a Property Search

By default, the Beagle search tool looks for search terms in the text of documents and in their metadata. To search for a word in a particular property, use `property:query`. For example, `author:john` searches for files that have “john” listed in the Author property.

Table 9-1 *Supported Property Keywords*

Keyword	Applies to	Property
album	Music files	Name of album
artist	Music file	Name of artist
author	Document	Author of the document (same as creator)
creator	Document	Creator of the document, mapped to dc:creator (for example, creator of PDF files)
email	Address book	E-mail address
extension or ext	File	File extension (for example, extension:jpeg or ext:mp3). Use extension: or ext: to search in files with no extension.
genre	Music file	Genre of music
imagecomment	Image file	Comments and descriptions found in images that have an IPTC caption or Exif comment
imagemodel	JPEG image	Model of camera (for example, EOS2D)

Keyword	Applies to	Property
imagetag	Image file	F-Spot and Digikam image tags, and IPTC keywords
mailfrom	E-mail	Name of sender
mailfromaddr	E-mail	E-mail address of sender
mailinglist	E-mail	Id of mailing list (for example, dashboard-hackers.gnome.org)
mailto	E-mail	Name of recipient
mailtoaddr	E-mail	E-mail address of recipient
speakingto	Chat	Speaker
title	Document	Title of document, mapped to dc:title (for example, title tag of HTML files)

Property searches follow the rules mentioned in Section 9.2, “Search Tips,” on page 174. You can use property searches as an OR query or as an exclusion query, and phrases can be used as *query*. For example, the following line will search for all PDF or HTML documents containing the word “apple” whose author property contains “john” and whose title does not contain the word “oranges”:

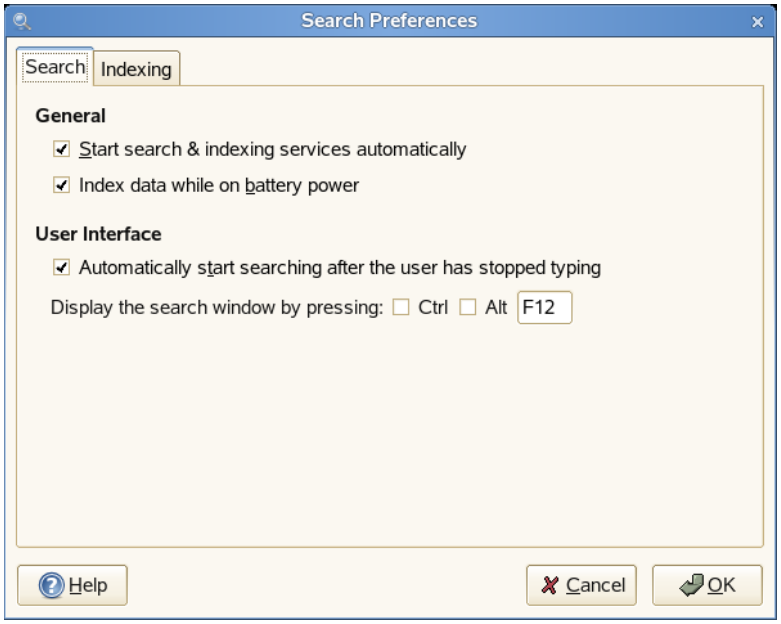
```
apple ext:pdf OR ext:html author:john -title:oranges
```

9.4 Setting Search Preferences

Use the Search Preferences dialog box to set search preferences for Beagle.

1 Click *Computer* > *More Applications* > *System* > *Search & Indexing*.

You can also click *Search* > *Preferences* in the Desktop Search dialog box.



2 Choose from the following options:

Start search & indexing services automatically: Select this option if you want the search daemon to start automatically when you log in to your session (this option is selected by default). If you want to use Beagle's Search functionality, the daemon must be running.

Index data while on battery power: Select this option if you want your data to be indexed when your computer is operating on battery power. This option is particularly useful if you are using SUSE Linux Enterprise Desktop on a laptop and you want to stop indexing when your laptop is running on battery power.

Automatically start searching after the user has stopped typing: Select this option if you want Beagle to start searching as soon as you stop entering text in the *Find* field in the Desktop Search window. This option has no effect on the *Search* field in the main menu.

Display the search window by pressing: Choose the keystrokes that will display the Desktop Search window by specifying any combination of Ctrl, Alt, and a function key. F12 is the default keystroke.

3 Click *OK*.

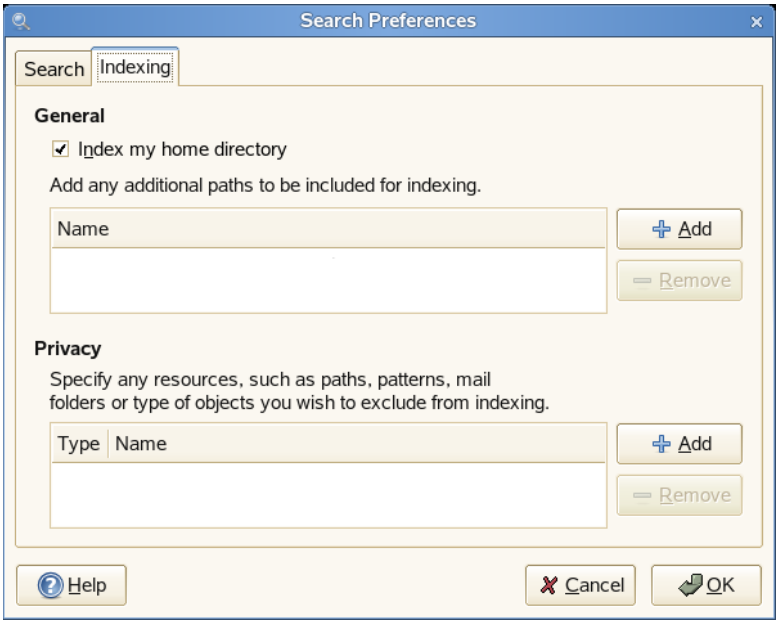
9.5 Indexing Other Directories

By default, Beagle indexes your home directory only. If you do not want your home directory to be indexed, uncheck the *Index my home directory* option on the *Indexing* tab of the Search Preferences dialog box. If you want to index additional folders, follow these steps:

1 Click *Computer* > *More Applications* > *System* > *Search & Indexing*.

You can also click *Search* > *Preferences* in the Desktop Search dialog box.

2 Click the *Indexing* tab.



3 Click *Add* in the *General* section of the dialog box.

4 Select the directory you want to index, then click *Open*.

Make sure you have rights to the directories you add.

5 If you want to remove a directory from the list of indexed directories, select it in the list, then click *Remove*.

6 Click *OK*.

9.6 Preventing Files and Directories from Being Indexed

Use the Search Preferences dialog box to specify resources that you don't want indexed. These resources can include directories, patterns, mail folders, or types of objects.

1 Click *Computer* > *More Applications* > *System* > *Search & Indexing*.

2 Click the *Indexing* tab.

3 Click *Add* in the *Privacy* section.

4 Select a resource to exclude from indexing, then specify the path to the resource.

5 Click *OK* twice.

Managing Printers

10

SUSE® Linux Enterprise Desktop (SLED) makes it easy to print your documents, whether your computer is connected directly to a printer or linked remotely on a network. This chapter describes how to set up printers in SLED and manage print jobs with the following tasks:

- "Installing a Printer" on page 179
- "Modifying Printer Settings" on page 180
- "Canceling Print Jobs" on page 180
- "Deleting a Printer" on page 180

10.1 Installing a Printer

Before you can install a printer, you need to know the root password and have your printer information ready. Depending on how you connect to the printer, you might also need the printer URI, TCP/IP address or host, and the driver for the printer. A number of common printer drivers ship with SLED. If you cannot find a driver for the printer, check the printer manufacturer's Web site.

10.1.1 Installing a Network Printer

1. Click *Computer* > *Control Center* > *Add Printer* > *New Printer*.
2. Enter the root password.
3. Click *Network Printer*, then select the type of connection for this printer.

   CUPS Printer (IPP): A printer attached to a different Linux system on the same network running CUPS or a printer configured on another operating system to use IPP.

   Windows Printer (SMB): A printer attached to a different system which is sharing a printer over a SMB network (for example, a printer attached to a Microsoft Windows machine).

   UNIX Printer (LPD): A printer attached to a different UNIX system that can be accessed over a TCP/IP network (for example, a printer attached to another Linux system on your network).

   HP JetDirect: A printer connected directly to the network instead of to a computer.
4. Specify the printer's information, then click *Forward*.
5. Select the printer driver for this printer, then click *Apply*.

   You can also install a printer driver from a disk, or visit the printer manufacturer's Web site to download the latest driver.
6. Specify desired options (such as a description or location) for the printer in the Properties dialog box, then click *Close*.

The installed printer appears in the Printers panel. You can now print to the printer from any application.

10.1.2 Installing a Local Printer

1. Connect the printer cable to your computer and connect the printer's power supply.

The printer dialog should open. If it doesn't, click *Computer* > *Control Center* > *Add Printer* > *New Printer* to open it.

2. Enter the root password.
3. Click *Local Printer*.
4. If the printer was autodetected, select the printer from the list. If the printer was not autodetected, click *Use another printer by specifying a port* and then select the correct printer port.
5. Click *Forward*.
6. Select the printer driver for this printer, then click *Apply*.

   You can also install a printer driver from a disk, or visit the printer manufacturer's Web site to download the latest driver.
7. Specify desired options (such as a description or location) for the printer in the Properties dialog box, then click *Close*.

The installed printer appears in the Printers dialog box. You can now print to the printer from any application.

10.2 Modifying Printer Settings

1. Click *Computer* > *Control Center* > *Printer*s.
2. Right-click the printer you want to modify, then click *Properties*.
3. Modify the properties, then click *Close*.

10.3 Canceling Print Jobs

1. Click *Computer* > *Control Center* > *Printer*.
2. Double-click the printer you sent the job to.
3. Right-click the print job, then click *Cancel*.

   If the print job does not appear in the list, then the print job might have been printed already.

10.4 Deleting a Printer

1. Click *Computer* > *Control Center* > *Printer*.
2. Click *Edit* > *Become Administrator*.
3. Type the root password, then click *Continue*.
4. Right-click the printer you want to delete, then click *Remove*.

Internet

Managing Network Connections 11

To surf the Internet or send and receive e-mail messages, you must have configured an Internet connection with YaST. Depending on your environment, in YaST select whether to use NetworkManager. In GNOME, you can then establish Internet connections with NetworkManager or ifup.

For a list of criteria to help you decide whether to use NetworkManager, see Section 30.5: Managing Network Connections with NetworkManager and Section 25.1.2: Integration in Changing Operating Environments in the *SUSE Linux Enterprise Desktop Deployment Guide*.

11.1 Enabling or Disabling NetworkManager

1. In YaST, click *Network Devices* > *Network Card*.
2. To enable NetworkManager, select *User Controlled with NetworkManager*.

   To disable NetworkManager, select *Traditional Method with ifup*.
3. Click *Next*.
4. Set up your network card using either automatic configuration via DHCP or a static IP address.
5. Click *Finish* to close the Network Card Configuration Overview window.

If you want to use a dial-up connection, configure your modem in *Network Devices* > *Modem*. To configure an internal or USB ISDN modem, select *Network Devices* > *ISDN*. To configure an internal or USB DSL modem, select *Network Devices* > *DSL*

Configure supported wireless cards directly in NetworkManager.

11.2 Using the GNOME NetworkManager Applet

The GNOME NetworkManager applet starts automatically with the desktop environment. If the applet is not running, you can start it with the `nm-applet` command. When it is running, an icon indicating the current network status is shown in the system tray. Depending on the state of the network connection, the panel icon changes appearance. If you are not sure what the icon means, hold your mouse over the icon until an explanation appears.

A wired connection has been established.

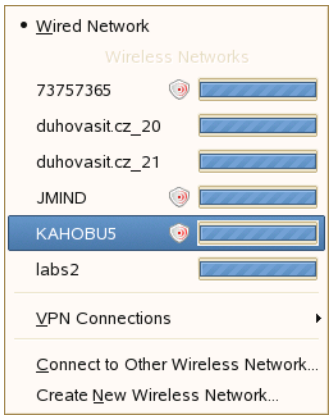
Currently there is no connection to the Internet.

A wireless connection has been established. Blue bars indicate the strength of the signal. More blue bars means better signal strength.

The connection is being established or terminated.

Left-click the applet icon to show a menu with available networks. The currently used connection is selected in the menu. To connect to a network, choose it from the list. To disable networking, right-click the applet icon and uncheck *Enable Networking*.

Figure 11-1 *Available Networks in GNOME Network Manager Applet*



To get information about the current connection (including interface used, IP address, and hardware address), right-click the applet icon and select *Connection Information*. In this dialog, you can also configure your network devices. To do so, click *Configure Networking* to open YaST where you can define a new connection.

11.2.1 Wireless Networks

The signal strength of wireless networks is also shown in the menu. Encrypted wireless networks are marked with a shield icon. To connect to an encrypted network, choose it from the menu. In the dialog that opens, choose the type of *Encryption* the network uses and enter the appropriate *Passphrase* or *Key*.

TIP: To connect to a network that does not broadcast its service set identifier (ESSID) and therefore cannot be detected automatically, left-click the icon and choose *Connect to Other Wireless Network*. In the dialog that opens, enter the ESSID and set encryption parameters if necessary.

If your wireless card supports access point mode, you can use NetworkManager for configuration. To configure your wireless card as an access point, click *Create New Wireless Network*. See "Access Point Configuration" on page 185 for more information. Add the network name and set the encryption in the *Wireless Security*.

IMPORTANT: If you set *Wireless Security* to `None`, everybody can connect to your network, reuse your connectivity, and intercept your network connection. To restrict access to your access point and to secure your connection, use encryption. You can choose from various WEP and WPA–based encryptions. If you are not sure which technology is best for you, see Chapter 28: Wireless Communication, in the *SUSE Linux Enterprise Desktop Deployment Guide*.

Figure 11-2 *Access Point Configuration*

Create New Wireless Network
Create new wireless network
Enter the name and security settings of the wireless network you wish to create.
By default, the wireless network's name is set to your computer's name, ropucha, with no encryption enabled
Network Name:
ropucha
Wireless Security:
None
Cancel
Connect

To disable wireless networking, right-click the applet icon and uncheck *Enable Wireless*.

11.2.2 NetworkManager and SCPM

NetworkManager cannot work together with System Configuration Profile Management (SCPM) if SCPM also manages the network configuration. If you want to use SCPM and NetworkManager at the same time, you must disable the network resource in the SCPM configuration. To disable the network resource in all your SCPM profiles:

1. In YaST, click *System* > *Profile Manager*.
2. In the group list, select *network* and click *Delete*.
3. Click *OK*.
4. Click *OK* again.
5. To finish the configuration, click *Close*.

11.2.3 NetworkManager and Security

NetworkManager distinguishes two types of wireless connections, trusted and untrusted. A trusted connection is any network that you explicitly selected in the past. All others are untrusted. Trusted connections are identified by the name and MAC address of the access point. Using the MAC address ensures that you cannot use a different access point with the name of your trusted connection.

If no wired connection is available, NetworkManager scans for available wireless networks. If multiple trusted networks are found, the most recently used is automatically selected. If all are untrusted, NetworkManager waits for your selection.

If the encryption setting changes but the name and MAC address remain the same, NetworkManager attempt to connect, but it first asks you to confirm the new encryption settings and provide any updates, such as a new key.

In a system with a wireless connection only, NetworkManager does not automatically start the connection during boot. You must log in first to establish a connection. If you want to make a

wireless connection accessible without login, configure the trusted connection with YaST. Only wireless connections configured with YaST are sufficiently credible for NetworkManager to use during boot.

If you switch to offline mode after using a wireless connection, NetworkManager removes the ESSID. This ensures that the card really is unassociated.

11.3 Common NeworkManager Tasks

This section describes how to achieve common tasks with NetworkManager, such as switching off the network or setting a static IP address.

- Section 11.3.1, "Switching Off the Network," on page 186
- Section 11.3.2, "Setting Up a Static IP Address on an Interface," on page 186
- Section 11.3.3, "Using NetworkManager with VPN," on page 186

11.3.1 Switching Off the Network

If you are on a plane or in any other environment where wireless networking is not allowed, you can switch it off easily using the NetworkManager applet. You can also switch off all network connections, both wired and wireless.

To disable networking, right-click the GNOME NetworkManager applet icon and uncheck *Enable Networking*. To disable wireless networking only, right-click the applet icon and uncheck *Enable Wireless*.

11.3.2 Setting Up a Static IP Address on an Interface

NetworkManager honors network interface settings made by YaST and saved in the `/etc/sysconfig/network` directory. If you want to use a static IP address with your network card, set the address using YaST.

1. In YaST, click *Network Devices* > *Network Card*.
2. Select *User Controlled with NetworkManager*, then click *Next*.
3. Select the network card to configure, then click *Edit*.
4. In the *Address* tab, select *Static Address Setup*.
5. Set your IP address, then click *Next*.
6. Click *Next* to finish and activate the static IP address.

11.3.3 Using NetworkManager with VPN

NetworkManager supports several VPN technologies. To use them, first install NetworkManager support for your VPN technology. You can select from:

- NovellVPN
- OpenVPN
- vpnc (Cisco)

VPN support is included in the `NetworkManager-novellvpn`, `NetworkManager-openvpn`, and `NetworkManager-vpns` packages.

To configure a new VPN connection with NetworkManager, left-click the GNOME NetworkManager applet and follow these steps:

1. Click *VPN Connections* > *Configure VPN*.
2. Click *Add*, then click *Forward* to start the Create VPN Connection wizard.
3. Select the type of VPN connection you want to create, then click *Forward*.
4. Type a name for your configuration in the *Connection Name* field.
5. Specify all required information for your type of connection.

   For example, for an OpenVPN connection, enter *Gateway* and choose the way to authenticate from *Connection type*. Complete the other required options depending on the connection chosen.

   Alternatively, load settings from a saved configuration file by pressing *Import Saved Configuration* and choosing your saved configuration file in a standard file dialog.
6. Click *Forward*.

After the VPN is configured, you can select it from *VPN Connections*. To close a VPN connection, click *Disconnect VPN*.

Browsing with Firefox

12

Included with your SUSE Linux Enterprise Desktop is the Mozilla Firefox Web browser. With features like tabs, pop-up window blocking, and download and image management, Firefox combines the latest Web technologies. You can view more than one Web page in a single window. You can suppress annoying advertisements and disable images that only slow you down. Its easy access to different search engines helps you find the information you need. Start the program from the main menu or by entering the command `firefox`. The main program features are described in the following sections.

- Section 12.1, “Navigating Web Sites,” on page 189
- Section 12.2, “Finding Information,” on page 190
- Section 12.3, “Managing Bookmarks,” on page 191
- Section 12.4, “Using the Download Manager,” on page 193
- Section 12.5, “Customizing Firefox,” on page 193
- Section 12.6, “Printing from Firefox,” on page 195
- Section 12.7, “For More Information,” on page 195

12.1 Navigating Web Sites

Firefox has much the same look and feel as other browsers. It is shown in “The Browser Window of Firefox” on page 190. The navigation toolbar includes *Forward* and *Back* and a location bar for a Web address. Bookmarks are also available for quick access. For more information about the various Firefox features, use the *Help* menu.

Figure 12-1 *The Browser Window of Firefox*

File Edit View History Bookmarks Tools Help
http://www.mozilla.com/en-US/firefox/
Google
SUSE Linux Entertainment News Internet Search Reference Maps and Directions Shopping
mozilla
Products Add-ons Support Developers About
Home » Products » Firefox
Firefox 2
The award-winning Web browser is now faster, more secure, and fully customizable to your online life. With Firefox 2, we've added powerful new features that make your online experience even better.
Download Firefox - Free
2.0.0.2 for Linux i686, English (9.2MB)
System Requirements - Release Notes - Other Systems & Languages
Enjoy a Better Web Experience
Firefox 2 delivers helpful new features to make your online experience more
http://www.mozilla.com/en-US/support/

12.1.1 Tabbed Browsing

If you often use more than one Web page at a time, tabbed browsing may make it easier to switch between them. Load Web sites in separate tabs within one window.

To open a new tab, select *File* > *New Tab*. This opens an empty tab in the Firefox window. Alternatively, right-click a link and select *Open link in new tab*. Right-click the tab itself to access more tab options. You can create a new tab, reload one or all existing tabs, or close them. You can also change the sequence of the tabs by dragging and dropping them on a requested position.

12.1.2 Using the Sidebar

Use the left side of your browser window for viewing bookmarks or the browsing history. Extensions may add new ways to use the sidebar as well. To display the Sidebar, select *View* > *Sidebar* and select the desired contents.

12.2 Finding Information

There are two ways to find information in Firefox: the search bar and the find bar. The search bar looks for pages while the find bar looks for things on the current page.

12.2.1 Finding Information on the Web

Firefox has a search bar that can access different engines, like Google, Yahoo, or Amazon. For example, if you want to find information about SUSE using the current engine, click in the search bar, type `SUSE`, and hit Enter. The results appear in your window. To choose your search engine, click the icon to the left of the search bar. A menu opens with a list of available search engines.

12.2.2 Installing a Different Search Engine

If you favorite search engine is not listed, Firefox gives you the possibility to configure it. Try the following steps:

1. Establish an Internet connection first.
2. Click the icon to the left of the search bar.
3. Select *Manage Search Engines* from the menu.
4. Click *Get more search engines*.
5. Firefox displays a Web page with available search engines. You can choose from Wikipedia, IMDB, and others. Click the desired search plug-in.
6. Install your search plug-in with *Add* or abort with *Cancel*.

12.2.3 Searching in the Current Page

To search inside a Web page, click *Edit* > *Find in This Page* or press Ctrl+F. The find bar opens. Usually, it is displayed at the bottom of a window. Type your query in the input field. Firefox finds the first occurrence of this phrase. You can find other occurrences of the phrase by pressing F3 or *Next* button in the find bar. You can also highlight all occurrences by pressing the *Highlight all* button.

12.3 Managing Bookmarks

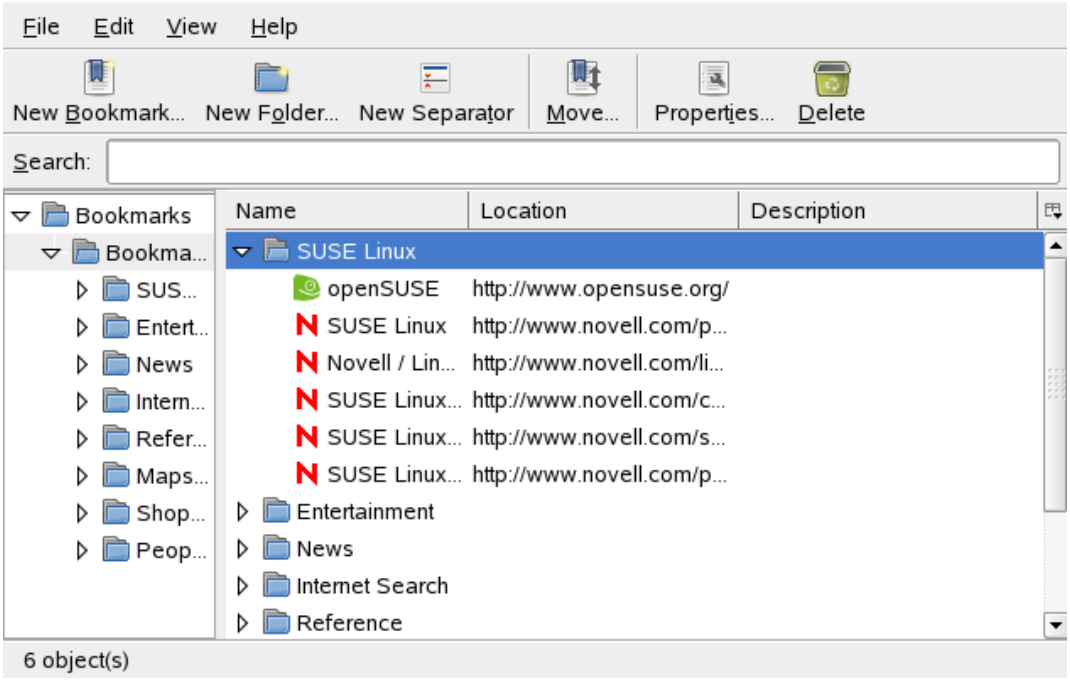
Bookmarks offer a convenient way of saving links to your favorite Web sites. To add the current Web site to your list of bookmarks, click *Bookmarks* > *Bookmark This Page*. If your browser currently displays multiple Web sites on tabs, only the URL on the currently selected tab is added to your list of bookmarks.

When adding a bookmark, you can specify an alternative name for the bookmark and select a folder where Firefox should store it. To bookmark Web sites on multiple tabs, select *Bookmark All Tabs*. Firefox creates a new folder that includes bookmarks of each site displayed on each tab. To remove a Web site from the bookmarks list, click *Bookmarks*, right-click the bookmark in the list, then click *Delete*.

12.3.1 Using the Bookmark Manager

The bookmark manager can be used to manage the properties (name and address location) for each bookmark and organize the bookmarks into folders and sections. It resembles “Using the Firefox Bookmark Manager” on page 192.

Figure 12-2 *Using the Firefox Bookmark Manager*



To open the bookmark manager, click *Bookmark* > *Organize Bookmarks*. A window opens and displays your bookmarks. With *New Folder*, create a new folder with a name and a description. If you need a new bookmark, click *New Bookmark*. This lets you insert the name, location, keywords, and also a description. The keyword is a shortcut to your bookmark. If you need your newly created bookmark in the sidebar, check *Load this bookmark in the sidebar*.

12.3.2 Importing Bookmarks from Other Browsers

If you used a different browser in the past, you probably want to use your preferences and bookmarks in Firefox, too. At the moment, you can import from Netscape 4.x, 6, 7, Mozilla 1.x, and Opera.

To import your settings, click *File* > *Import*. Select the browser from which to import settings. After you click *Next*, your settings are imported. Find your imported bookmarks in a newly created folder, beginning with `From`.

12.3.3 Live Bookmarks

Live bookmarks display headlines in your bookmark menu and keep you up to date with the latest news. This enables you to save time with one glance at your favorite sites.

Many sites and blogs support this format. A Web site indicates this by showing an orange icon in the right part of the location bar. Click it and choose *Subscribe to NAME OF THE FEED*. Click *Subscribe now* in the page that opens. A dialog box opens in which to select the name and location of your live bookmark. Confirm with *Add*.

Some sites do not tell Firefox that they support a news feed, although they actually do. To add a live bookmark manually, you need the URL of the feed. Do the following:

Adding a Live Bookmark Manually

1. Open the bookmark manager with *Bookmarks* > *Organize Bookmarks*. A new window opens.
2. Select *File* > *New Live Bookmark*. A dialog box opens.
3. Insert a name for the live bookmark and add your URL in the *Feed Location*, for example, http://www.novell.com/newsfeeds/rss/coolsolutions.xml (http://www.novell.com/newsfeeds/rss/coolsolutions.xml). Firefox updates your live bookmarks.
4. Close your bookmark manager.

12.4 Using the Download Manager

With the help of the download manager, keep track of your current and past downloads. To open the download manager, click *Tools* > *Downloads*. Firefox opens a window with your downloads. While downloading a file, see a progress bar and the current file. If necessary, pause a download and resume it later. To open a downloaded file, click *Open*. With *Remove*, remove it from the list. If you need information about the file, right-click the filename and choose *Properties*.

If you need further control of the download manager, open the configuration window from *Edit* > *Preferences* and go to the *Main* tab. Here, determine the download folder and how the manager behaves.

12.5 Customizing Firefox

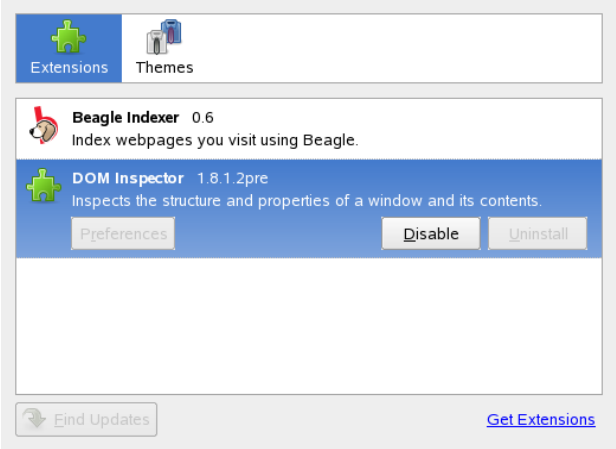
Firefox can be customized extensively. You can install extensions, change themes, and add smart keywords for your online searches.

12.5.1 Extensions

Mozilla Firefox is a multifunctional application, which means that you can download and install add-ons, known as extensions. For example, add a new download manager and mouse gestures. This has the advantage that Firefox itself stays small and unbloated.

To add an extension, click *Tools* > *Add-ons* > *Extensions*. In the bottom-right corner, click *Get Extensions* to open the Mozilla extensions update Web page where you can choose from a variety of available extensions. Click the extension to install then click the install link to download and install it. When you restart Firefox, the new extension is functional. You can also look at the various extensions at Firefox Add-ons (http://addons.mozilla.org/).

Figure 12-3 *Installing Firefox Extensions*

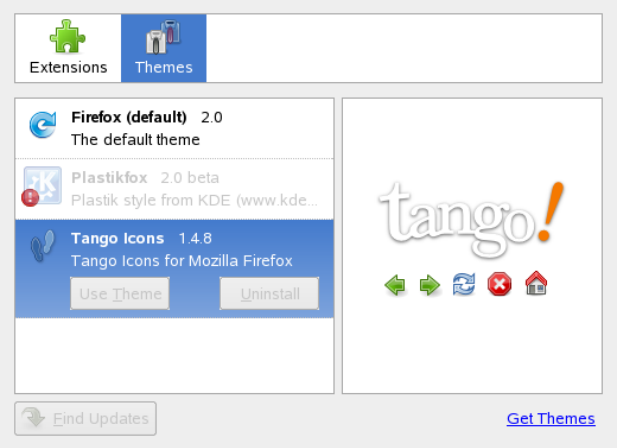


12.5.2 Changing Themes

If you do not like the standard look and feel of Firefox, install a new *theme*. Themes do not change the functionality, only the appearance of the browser. When installing a theme, Firefox asks for confirmation first. Allow the installation or cancel it. After a successful installation, you can enable the new theme.

1. Click *Tools* > *Add-ons* > *Themes*.
2. In the new dialog that appears, click *Get Themes*. If you already installed a theme, find it in the list, as in "Installing Firefox Themes" on page 194.

Figure 12-4 *Installing Firefox Themes*



3. A new window appears with the Firefox Add-ons (https://addons.mozilla.org) Web site.
4. Choose a theme and click *Install Now*.
5. Confirm the download and installation.
6. After downloading the theme, select the theme in the list of themes then click *Use Theme*.
7. Close the window and restart Firefox.

If a theme is installed, you can always switch to a different theme without restarting by clicking *Tools* > *Add-ons* > *Themes* then *Use Theme*. If you do not use a theme anymore, you can delete it in the same dialog with *Uninstall*.

12.5.3 Adding Smart Keywords to Your Online Searches

Searching the Internet is one of the main tasks a browser can perform for you. Firefox lets you define your own *smart keywords*: abbreviations to use as a "command" for searching the Web. For example, if you use Wikipedia often, use a smart keyword to simplify this task:

1. Go to Wikipedia (http://en.wikipedia.org).
2. After Firefox displays the Web page, see the search text field. Right-click it then choose *Add a Keyword for this Search* from the menu that opens.
3. The *Add Bookmark* dialog appears. In *Name*, name this Web page, for example, *Wikipedia (en)*.
4. For *Keyword*, enter your abbreviation of this Web page, for example, *wiki*.
5. With *Create in*, choose the location of the entry in your bookmarks section. You can put it into any folder.
6. Finalize with *Add*.

You have successfully generated a new keyword. Whenever you need to look into Wikipedia, you do not have to use the entire URL. Just type `wiki Linux` to view an entry about Linux.

12.6 Printing from Firefox

Configure the way Firefox prints the content it displays using the *Page Setup* dialog. Click *File* > *Page Setup* then go to the *Format & Options* tab to select the orientation of your print jobs. You can scale or make it adjust automatically. To print a background, select *Print Background (colors & images)*. Click the *Margins & Header/Footer* tab to adjust margins and select what to include in the headers and footers.

After you configured your settings, print a Web page with *File* > *Print*. Select the printer or a file in which to save the output. With *Properties*, set the paper size, specify the print command, choose grayscale or color, and determine the margins. When satisfied with your settings, approve with *Print*.

12.7 For More Information

Get more information about Firefox from the official home page at http://www.mozilla.com/firefox/ (http://www.mozilla.com/firefox/). Refer to the integrated help to find out more about certain options or features.

Reading Newsfeeds with Liferea 13

Liferea is a news aggregator for receiving and reading online newsfeeds. It provides GNOME users a fast, easy-to-use interface for reading Internet newsfeeds and blogs.

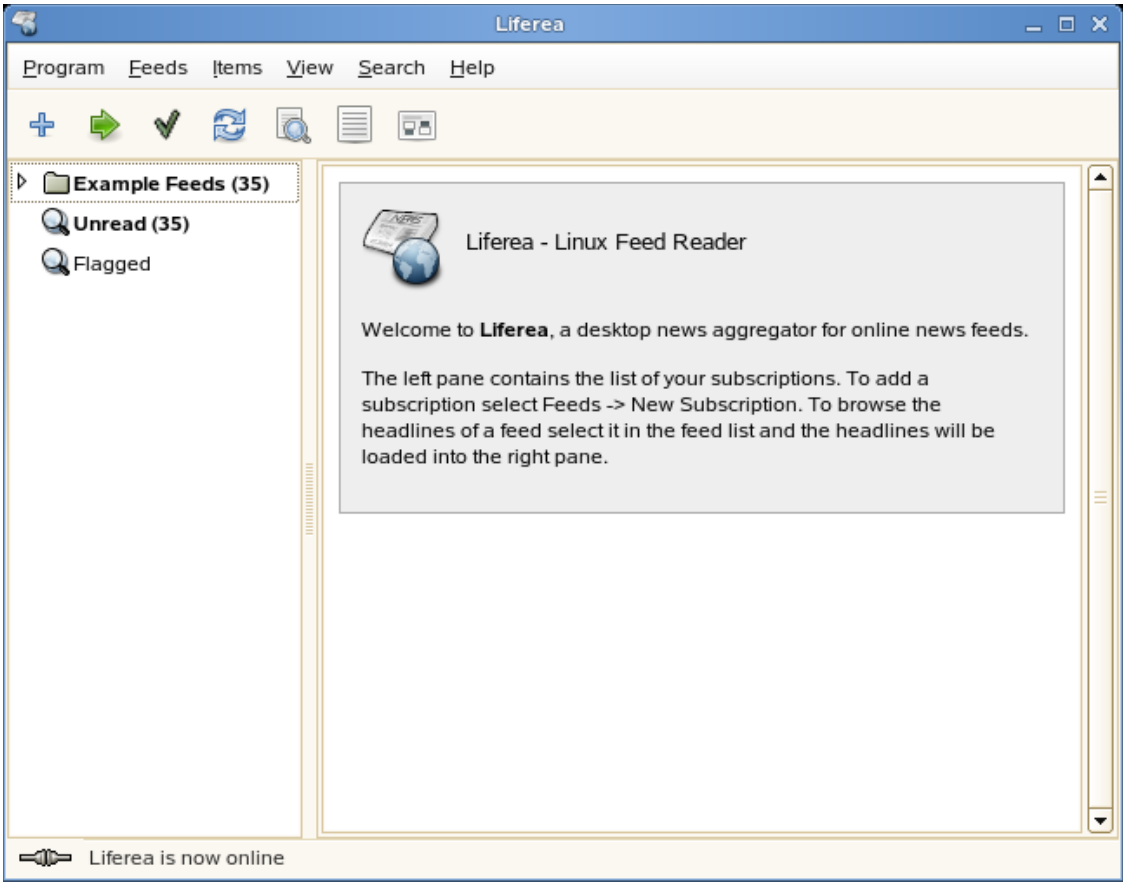
This chapter contains the following information:

- Section 13.1, “Starting Liferea,” on page 197
- Section 13.2, “Reading a Newsfeed,” on page 198
- Section 13.3, “Creating a New Subscription,” on page 199
- Section 13.4, “Updating Subscriptions,” on page 199
- Section 13.5, “For More Information,” on page 199

13.1 Starting Liferea

To start Liferea, click *Computer* > *More Applications* > *Communicate* > *Liferea*.

Figure 13-1 *Liferea Main Screen*


Liferea
Program
Feeds
Items
View
Search
Help
Example Feeds (35)
Unread (35)
Flagged
Liferea - Linux Feed Reader
Welcome to Liferea, a desktop news aggregator for online news feeds.
The left pane contains the list of your subscriptions. To add a subscription select Feeds -> New Subscription. To browse the headlines of a feed select it in the feed list and the headlines will be loaded into the right pane.
Liferea is now online

By default, the Liferea interface is divided into two sections: the Feed List and the Item List. The Feed List is on the left. It contains a list of your subscriptions. When you click on a subscription, the

headlines for that subscription appear in the Item List, on the right. When you click on a headline, the contents of that feed appear in the View pane, beneath the Item List.

Drag the borders between each pane to resize the panes for more comfortable viewing.

13.2 Reading a Newsfeed

Liferea comes preconfigured to receive newsfeeds from Novell® Cool Solutions™ and Novell Technical Information. To read one of these example feeds:

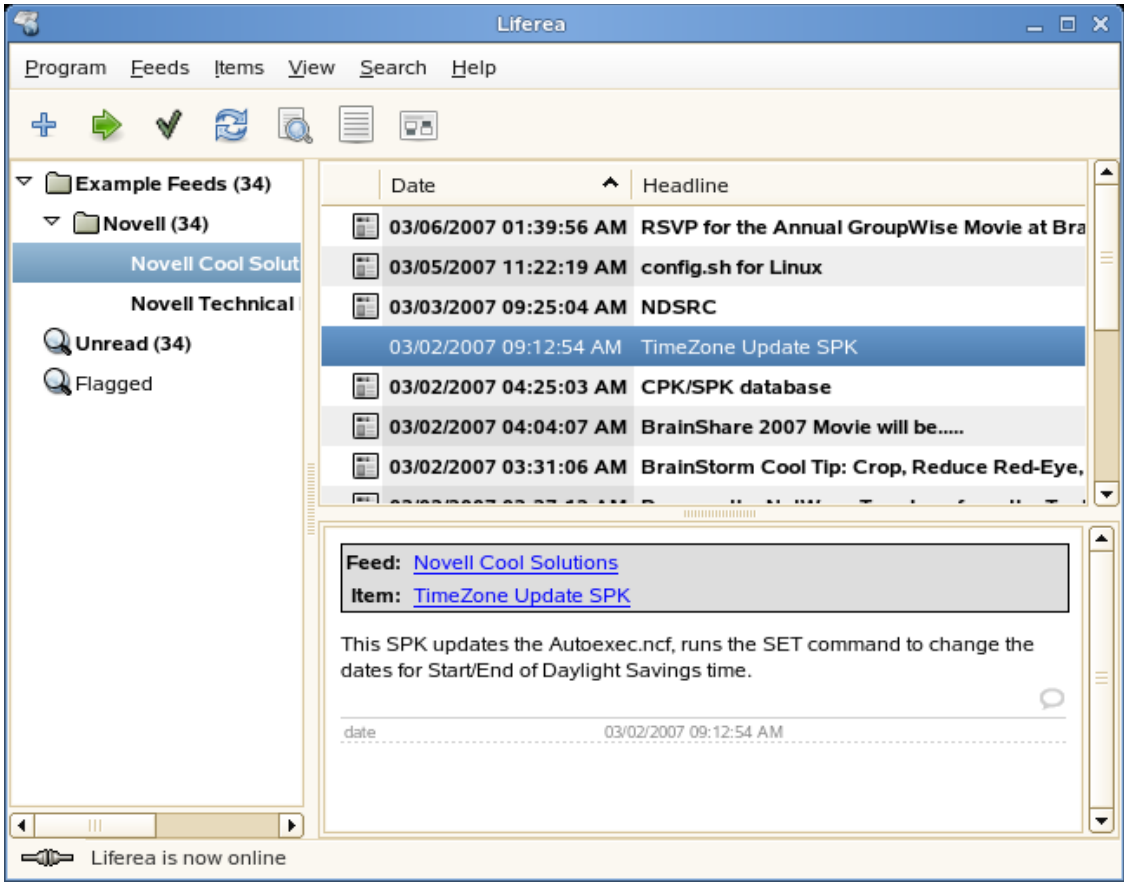
1. Start Liferea as described in Section 13.1, "Starting Liferea," on page 197.
2. In the Feed List, click the subscription you want to read.

   For example, click *Example Feeds* > *Novell* > *Novell Cool Solutions*.
3. Click a headline in the Item List.

   Unread headlines appear in bold text. When you click a headline, the selected item opens for reading in the View pane.

Unlike many news aggregators, Liferea lets you read news even if you are offline. After headlines are fed to Liferea, you can read the items, whether you are online or not. You must be online, however, to update your newsfeeds with the latest headlines.

Figure 13-2 *Reading a Newsfeed with Liferea*



13.3 Creating a New Subscription

You can subscribe to feeds from many locations on the Internet. These include news and information services, blogs, discussion forums, and more. This section describes how to add a subscription. The example in the following procedure shows how to subscribe to the CNN* Top Stories newsfeed, but the process is very similar for most feed providers.

1. Start Liferea as described in Section 13.1, “Starting Liferea,” on page 197.
2. Obtain the URL for the desired feed.

   For example, to obtain the CNN newsfeed URL:

   2a Open your browser and go to http://www.cnn.com.

   2b Scroll down near the bottom of the CNN page, then click *RSS*.

   2c Locate the URL for the Top Stories feed in the list provided by CNN and copy it.

   For this example, the URL is http://rss.cnn.com/rss/cnn_topstories.rss.
3. In Liferea, click *Feeds* > *New Subscription*.
4. Paste the URL into the *Source* field.
5. Click *OK*.
6. Enter a name for the feed and the amount of time you want to pass before the feed is checked for updates, then click OK.

The newsfeed is added to the Feed List. Any headlines are downloaded and added to the Item List.

13.4 Updating Subscriptions

Subscriptions are updated with the latest headlines according to the time interval you set when you created the subscription. You can also update your subscriptions manually before the interval has passed. You can update all of your subscriptions at once, update only the subscriptions in a folder, or update a specific individual subscription.

To update all subscriptions at once: Click *Feeds* > *Update All*.

To update all subscriptions within a folder: Select the folder you want to update, then click *Feeds* > *Update Selected*.

To update a specific subscription: To update a specific subscription, select the subscription and click *Feeds* > *Update Selected*.

13.5 For More Information

For more information about using Liferea, click *Help* or refer to the official Liferea home page at http://liferea.sourceforge.net/ (http://liferea.sourceforge.net/).

Multimedia

IV

Manipulating Graphics with The GIMP

14

The GIMP (*The GNU Image Manipulation Program*) is a program for creating and editing pixel graphics. In most aspects, its features are comparable to those of Adobe Photoshop and other commercial programs. Use it to resize and retouch photographs, design graphics for Web pages, make covers for your custom CDs, or almost any other graphics project. It meets the needs of both amateurs and professionals.

Like many other Linux programs, The GIMP is developed as a cooperative effort of developers worldwide who volunteer their time and code to the project. The program is under constant development, so the version included in your system may vary slightly from the version discussed here. The layout of the individual windows and window sections is especially likely to vary.

The GIMP is an extremely complex program. Only a small range of features, tools, and menu items are discussed in this chapter. See "For More Information" on page 213 for ideas of where to find more information about the program.

14.1 Graphics Formats

There are two main formats for graphics—pixel and vector. The GIMP works only with pixel graphics, which is the normal format for photographs and scanned images. Pixel graphics consist of small blocks of color that together create the entire image. The files can easily become quite large because of this. It is also not possible to increase the size of a pixel image without losing quality.

Unlike pixel graphics, vector graphics do not store information for all individual pixels. Instead, they store information about how image points, lines, or areas are grouped together. Vector images can also be scaled very easily. Inkscape or the drawing application of OpenOffice.org, for example, use this format.

14.2 Starting The GIMP

To start The GIMP, click *Computer* > *More Applications* > *Images* > *The GIMP*, or enter `gimp &` in a terminal.

14.2.1 Initial Configuration

When starting The GIMP for the first time, a configuration wizard opens for preparatory configuration. The default settings are acceptable for most purposes. Press *Continue* in each dialog unless you are familiar with the settings and prefer another setup.

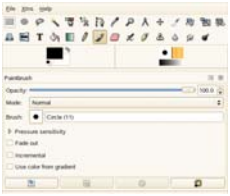
14.2.2 The Default Windows

Three windows appear by default. They can be arranged on the screen and, except the toolbox, closed if no longer needed. Closing the toolbox closes the application. In the default configuration, The GIMP saves your window layout when you exit. Dialogs left open reappear when you next start the program.

The Toolbox

The main window of The GIMP, shown in "The Main Window" on page 204, contains the main controls of the application. Closing it exits the application. At the very top, the menu bar offers access to file functions, extensions, and help. Below that, find icons for the various tools. Hover the mouse over an icon to display information about it.

Figure 14-1 *The Main Window*



The current foreground and background color are shown in two overlapping boxes. The default colors are black for the foreground and white for the background. Click the box to open a color selection dialog. Swap the foreground and background color with the bent arrow symbol to the upper right of the boxes. Use the black and white symbol to the lower left to reset the colors to the default.

To the right, the current brush, pattern, and gradient are shown. Click the displayed one to access the selection dialog. The lower portion of the window allows configuration of various options for the current tool.

Under the toolbox, a dialog shows options for the currently selected tool. If it is not visible, open it by double-clicking the tool's icon in the toolbox.

Layers, Channels, Paths, Undo

In the first section, use the drop-down box to select the image to which the tabs refer. By clicking *Auto*, control whether the active image is chosen automatically. By default, *Auto* is enabled.

Layers shows the different layers in the current images and can be used to manipulate the layers. Information is available in "Layers" on page 211. *Channels* shows and can manipulate the color channels of the image.

Paths are a vector-based method of selecting parts of an image. They can also be used for drawing. *Paths* shows the paths available for an image and provides access to path functions. *Undo* shows a limited history of modifications made to the current image. Its use is described in "Undoing Mistakes" on page 211.

14.3 Getting Started

Although The GIMP can be a bit overwhelming for new users, most quickly find it easy to use once they work out a few basics. Crucial basic functions are creating, opening, and saving images.

14.3.1 Creating a New Image

To create a new image, select *File* > *New* or press Ctrl+N. This opens a dialog in which to make settings for the new image. If desired, select a predefined setting called a *Template*. To create a

custom template, select *File* > *Dialogs* > *Templates* and use the controls offered by the window that opens.

In the *Image Size* section, set the size of the image to create in pixels or another unit. Click the unit to select another unit from the list of available units. The ratio between pixels and a unit is set in *Resolution*, which appears when the *Advanced Options* section is open. A resolution of 72 pixels per inch corresponds to common screen display. It is sufficient for Web page graphics. A higher resolution should be used for images to print. For most printers, a resolution of 300 pixels per inch results in an acceptable quality.

In *Colorspace*, select whether the image should be in color (*RGB*) or *Grayscale*. For detailed information about image types, see "Image Modes" on page 212. Select the *Fill Type* for the new image. *Foreground Color* and *Background Color* use the colors selected in the toolbox. *White* uses a white background in the image. *Transparent* creates a clear image. Transparency is represented by a gray checkerboard pattern. Enter a comment for the new image in *Comment*.

When the settings meet your needs, press *OK*. To restore the default settings, press *Reset*. Pressing *Cancel* aborts creation of a new image.

14.3.2 Opening an Existing Image

To open an existing image, select *File* > *Open* or press Ctrl+O. In the dialog that opens, select the desired file. You can also press Ctrl+L and type directly the URI of the desired image. Then click *Open* to open the selected image or press *Cancel* to skip opening an image.

14.3.3 Scanning an Image

Instead of opening an existing image or creating a new one, you can scan one. To scan directly from The GIMP, make sure that the package `xsane` is installed. To open the scanning dialog, select *File* > *Acquire* > *XSane: Device dialog*.

Create a preview when the object to scan is smaller than the total scanning area. Press *Acquire preview* in the *Preview* dialog to create a preview. If you want to scan only part of the area, select the desired rectangular part with the mouse.

In the *xsane* dialog, select whether to scan a binary (black and white without shades of gray), grayscale, or color image and the required scan resolution. The higher the resolution, the better the quality of the scanned image is. However, this also results in a correspondingly larger file and the scanning process can take a very long time at higher resolutions. The size of the final image (both in pixels and bytes) is shown in the lower part of the dialog.

In the *xsane* dialog, use the sliders to set desired gamma, brightness, and contrast values. These sliders are not available in binary mode. Changes are visible in the preview immediately. Once all settings have been made, click *Scan* to scan the image.

14.3.4 The Image Window

The new, opened, or scanned image appears in its own window. The menu bar in the top of the window provides access to all image functions. Alternatively, access the menu by right-clicking the image or clicking the small arrow button in the left corner of the rulers.

File offers the standard file options, such as *Save* and *Print*. *Close* closes the current image. *Quit* closes the entire application.

With the items in the *View* menu, control the display of the image and the image window. *New View* opens a second display window of the current image. Changes made in one view are reflected in all other views of that image. Alternate views are useful for magnifying a part of an image for manipulation while seeing the complete image in another view. Adjust the magnification level of the current window with *Zoom*. When *Shrink Wrap* is selected, the image window is resized to fit the current image display exactly.

14.4 Saving Images

No image function is as important as *File* > *Save*. It is better to save too often than too rarely. Use *File* > *Save as* to save the image with a new filename. It is a good idea to save image stages under different names or make backups in another directory so you can easily restore a previous state.

When saving for the first time or using *Save as*, a dialog opens in which to specify the filename and type. Enter the filename in the field at the top. For *Save in folder*, select the directory in which to save the file from a list of commonly used directories. To use a different directory or create a new one, open *Browse for other folders*. It is recommended to leave *Select File Type* set to *By Extension*. With that setting, The GIMP determines the file type based on the extension appended to the filename. The following file types are frequently useful:

XCF

This is the native format of the application. It saves all layer and path information along with the image itself. Even if you need an image in another format, it is usually a good idea to save a copy as XCF to simplify future modifications. Information about layers is available in "Layers" on page 211.

PAT

This is the format used for The GIMP patterns. Saving an image in this format enables using the image as a fill pattern in The GIMP.

JPG

JPG or JPEG is a common format for photographs and Web page graphics without transparency. Its compression method enables reduction of file sizes, but information is lost when compressing. It may be a good idea to use the preview option when adjusting the compression level. Levels of 85% to 75% often result in an acceptable image quality with reasonable compression. Saving a backup in a lossless format, like XCF, is also recommended. If editing an image, save only the finished image as JPG. Repeatedly loading a JPG then saving can quickly result in poor image quality.

GIF

Although very popular in the past for graphics with transparency, GIF is less often used now because of license issues. GIF is also used for animated images. The format can only save *indexed* images. See "Image Modes" on page 212 for information about indexed images. The file size can often be quite small if only a few colors are used.

PNG

With its support for transparency, lossless compression, free availability, and increasing browser support, PNG is replacing GIF as the preferred format for Web graphics with transparency. An added advantage is that PNG offers partial transparency, which is not offered by GIF. This enables smoother transitions from colored areas to transparent areas (*antialiasing*).

To save the image in the chosen format, press *Save*. To abort, press *Cancel*. If the image has features that cannot be saved in the chosen format, a dialog appears with choices for resolving the situation. Choosing *Export*, if offered, normally gives the desired results. A window then opens with the options of the format. Reasonable default values are provided.

14.5 Editing Images

The GIMP provides a number of tools for making changes to images. The functions described here are those most interesting for home users.

14.5.1 Changing the Image Size

Once an image is scanned or a digital photograph is loaded from the camera, it is often necessary to modify the size for display on a Web page or for printing. Images can easily be made smaller either by scaling them down or by cutting off parts of them. Making an image larger is much more problematic. Because of the nature of pixel graphics, quality is lost when an image is made larger. It is recommended to keep a copy of your original image before scaling or cropping.

Cropping an Image

Cropping an image works like cutting the edges off a piece of paper. Select the crop tool from the toolbox (it resembles a scalpel) or with *Tools* > *Transform Tools* > *Crop & Resize*. Click a starting corner and drag to outline the area to keep.

A small window opens with information about the starting point and the size of the selected area. Adjust these values by clicking and dragging a corner of the crop box or by adjusting the values in the window. *From Selection* adjusts the crop to fit the current selection (selections are explained in "Selecting Parts of Images" on page 208). *Auto Shrink* makes the crop smaller based on color changes in the image.

Press *Cancel* to abort the crop. Press *Crop* to crop the image. The results of *Resize* are identical to those of *Change Canvas Size*, described in "Changing the Canvas Size" on page 207.

Scaling an Image

Select *Image* > *Scale Image* to change the overall size of an image. Select the new size by entering it in *Width* or *Height*. To change the proportions of the image when scaling (this distorts the image), click the chain icon to the right of the fields to break the link between them. When those fields are linked, all values are changed proportionately when the value in one of the fields is changed. Adjust the resolution with *X resolution* and *Y resolution*.

Interpolation is an expert option that controls the scale method. When finished adjusting the size, press *Scale* to scale the image. *Reset* restores the original values. *Cancel* aborts the procedure.

Changing the Canvas Size

Changing the canvas size is like putting a mat around an image. Even if the mat is smaller, the rest of the image is there, but you can only see part of it. If the mat is larger, you see the original image with extra space around it. To do this, select *Image* > *Canvas Size*.

In the dialog that opens, enter the new size. By default, the width and height maintain the same proportions as the current image. To change this, click the chain icon.

After adjusting the size, determine how the existing image should be positioned in comparison to the new size. Use the offset values or drag the box inside the frame at the bottom. When satisfied with the changes, click *Resize* to change the canvas size. Click *Reset* to restore the original values or *Cancel* to cancel the canvas resize.

14.5.2 Selecting Parts of Images

It is often useful to perform an image operation on only part of an image. To do this, the part of the image with which to work must be selected. Areas can be selected using the select tools available in the toolbox, using the quick mask, or combining different options. Selections can also be modified with the items under *Select*. The selection is outlined with a dashed line, called *marching ants*.

Using the Selection Tools

The main select tools are rather easy to use. The paths tool, which can also be used for more than selecting, is more complicated so is not described here. In the tool options for the other select tools, use one of the icons in the *Mode* row to determine whether the selection should replace, be added to, be subtracted from, or intersect with an existing selection.

Rect Select

This tool can be used to select rectangular or square areas. In the tool options, select among *Free Select*, *Fixed Size*, and *Fixed Aspect Ratio* to control the shape and size of the selection. To make a square selection in the free select mode, hold Shift while selecting a region.

Ellipse Select

Use this to select elliptical or circular areas. The same options are available as with rectangular selection. Holding Shift during selection produces a circle.

Free Select (Lasso)

Draw a selection area freehand with this tool by dragging the mouse over the image with the left mouse button pressed. The end points will be connected with a straight line when you release the tool. The area inside is then selected.

Fuzzy Select (Magic Wand)

This tools selects a continuous region based on color similarities. Set the maximum difference between colors in the tool options dialog in *Threshold*.

By Color Select

With this, select all the pixels in the image with the same or similar color as the clicked pixel. The maximum difference between colors can be set in the tool options dialog in *Threshold*.

Intelligent Scissors

Click a series of points in the image. As you click, the points are connected based on color differences. Click on the first point to close the area. Convert it to a regular selection by clicking inside it.

Using the Quick Mask

The quick mask is a way of selecting parts of an image using the paint tools. A good way to use it is to make a rough selection using the intelligent scissors or the lasso (freehand selection tool). Then activate the quick mask by pressing the small icon with the dashed box in the lower left corner.

The quick mask displays the selection using an overlay of red. Areas shaded with red are not selected. Areas appearing as they did before the mask was activated are selected. To modify the selection, use the paint tools. Painting with white selects the painted pixels. Painting with black deselects pixels. Shades of gray (colors are treated as shades of gray) are a partial selection. Partial selection allows smooth transitions between selected and unselected areas.

To use a different color for displaying the quick mask, right-click the quick mask button then select *Configure Color and Opacity* from the menu. Click the colored box in the dialog that opens to select a new color.

After using the paint tools to adjust the selection as desired, convert from the quick mask view back to the normal selection view by clicking the icon in the lower left corner of the image window (currently displaying a red box). The selection is again displayed with the marching ants.

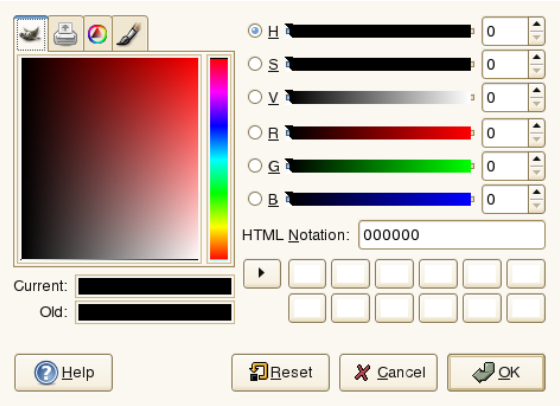
14.5.3 Applying and Removing Color

Most image editing involves applying or removing color. By selecting a part of the image, limit where color can be applied or removed. When you select a tool and move the cursor onto an image, the cursor's appearance changes to reflect the chosen tool. With many tools, an icon of the current tool is shown along with the arrow. For paint tools, an outline of the current brush is shown, allowing you to see exactly where you will be painting in the image and how large an area will be painted.

Selecting Colors

Paint tools use the foreground color. To select the color, first click the display box of the foreground color. A dialog with four tabs opens. These tabs provide different color selection methods. Only the first tab, shown in "The Basic Color Selector Dialog" on page 209, is described here. The new color is shown in *Current*. The previous color is shown in *Old*.

Figure 14-2 *The Basic Color Selector Dialog*



The easiest way to select a color is using the colored areas in the boxes to the left. In the narrow vertical bar, click a color similar to the desired color. The larger box to the left then shows available nuances. Click the desired color. It is then shown in *Current*. If that color is not what you want, try again.

The arrow button to the right of *Current* enables saving a number of possible colors. Click the arrow to copy the current color to the history. A color can then be selected by clicking it in the history. A color can also be selected by directly entering its hexadecimal color code in *HTML Notation*.

The color selector defaults to selecting a color by hue, which is usually easiest for a new user. To select by saturation, value, red, green, or blue, select the corresponding radio button to the right. The sliders and number fields can also be used to modify the currently selected color. Experiment a bit to find out what works best for you.

When the desired color is shown in *Current*, click *OK*. To restore the original values shown when the dialog was opened, click *Reset*. To abort changing the color, click *Cancel*.

To select a color that already exists in your image, use the color picker tool, the icon for which resembles an eye dropper. With the tool options, set whether the foreground or background color should be selected. Then click a point in the image that shows the desired color. When the color is right, click *Close* to close the tool's dialog.

Painting and Erasing

To paint and erase, use the tools from the toolbox. There are a number of options available to fine-tune each tool. Pressure sensitivity options apply only when a pressure-sensitive graphics tablet is used.

The pencil, brush, airbrush, and eraser work much like their real-life equivalents. The ink tool works like a calligraphy pen. Paint by clicking and dragging. The bucket fill is a method of coloring areas of an image. It fills based on color boundaries in the image. Adjusting the threshold modifies its sensitivity to color changes.

Adding Text

With the text tool, easily add text to an image. With the tool options, select the desired font, font size, color, justification, indent, and line spacing. Then click a starting point in the image. A small dialog opens in which to enter your text. Enter single or multiple lines of text then press *Close*.

The text tool creates text on a special layer. To work with the image after adding text, read “Layers” on page 211. When the text layer is active, it is possible to modify the text by clicking in the image to reopen the entry dialog. Change the settings by modifying the tool options.

Retouching Images—The Clone Tool

The clone tool is ideal for retouching images. It enables you to paint in an image using information from another part of the image. If desired, it can instead take information from a pattern.

When retouching, it is usually a good idea to use a small brush with soft edges. In this way, the modifications can blend better with the original image.

To select the source point in the image, press and hold Ctrl while clicking the desired source point. Then paint with the tool as usual. When you move the cursor while painting, the source point, marked by a cross, moves as well. If the *Alignment* is set to *Non Aligned* (the default setting), the source resets to the original when you release the left mouse button.

14.5.4 Adjusting Color Levels

Images often need a little adjusting to get ideal print or display results. In many programs designed for inexperienced users, the brightness and contrast levels are modified. This can work and is also available in The GIMP, but better results can be obtained by adjusting the color levels.

To do this, select *Layer* > *Colors* > *Levels*. A dialog opens for controlling the levels in the image. Good results can usually be obtained by clicking *Auto*. To make manual adjustments to all channels, use the dropper tools in *All Channels* to pick areas in the image that should be black, neutral gray, and white.

To modify a channel individually, select the desired channel in *Channel*. Then drag the black, white, and middle markers in the slider in *Input Levels*. Alternatively, use the dropper tools to select points in the image that should serve as the white, black, and gray points for that channel.

If *Preview* is checked, the image window shows a preview of how the image would look with the modifications applied. When the desired result is achieved, press *OK* to apply the changes. With *Reset*, restore the original settings. *Cancel* aborts level adjustment.

14.5.5 Undoing Mistakes

Most modifications made in The GIMP can be undone. To view a history of modifications, use the undo dialog included in the default window layout or open one from the toolbox menu with *File* > *Dialogs* > *Undo History*.

The dialog shows a base image and a series of editing changes that can be undone. Use the buttons to undo and redo changes. In this way, you can work back to the base image. If you undo a modification then make a new one, the undone modification cannot be redone.

Changes can also be undone and redone with the *Edit* menu. Alternatively, use the shortcuts Ctrl+Z and Ctrl+Y.

14.5.6 Layers

Layers are a very important aspect of The GIMP. By drawing parts of your image on separate layers, change, move, or delete those parts without damaging the rest of the image. To understand how layers work, imagine an image created from a stack of transparent sheets. Different parts of the image are drawn on different sheets. The stack can be rearranged, changing which parts are on top. Individual layers or groups of layers can shift position, moving sections of the image to other locations. New sheets can be added and others set aside.

Use the *Layers* dialog to view the available layers of an image. The text tool automatically creates special text layers when used. The active layer is highlighted. The buttons at the bottom of the dialog offer a number of functions. More are available in the menu opened when a layer is right-clicked in the dialog. The two icon spaces before the image name are used for toggling image visibility (eye icon when visible) and for linking layers. Linked layers are marked with the chain icon and moved as a group.

Only layers with transparency (an alpha channel) can be placed above other layers in a stack. To add this to a layer, right-click and select it from the menu.

14.5.7 Image Modes

The GIMP has three image modes—RGB, Grayscale, and Indexed. RGB is a normal color mode and is the best mode for editing most images. Grayscale is used for black-and-white images. Indexed limits the colors in the image to a set number. It is mainly used for GIF images. If you need an indexed image, it is normally best to edit the image in RGB then convert to indexed right before saving. If you save to a format that requires an indexed image, The GIMP offers to index the image when saving.

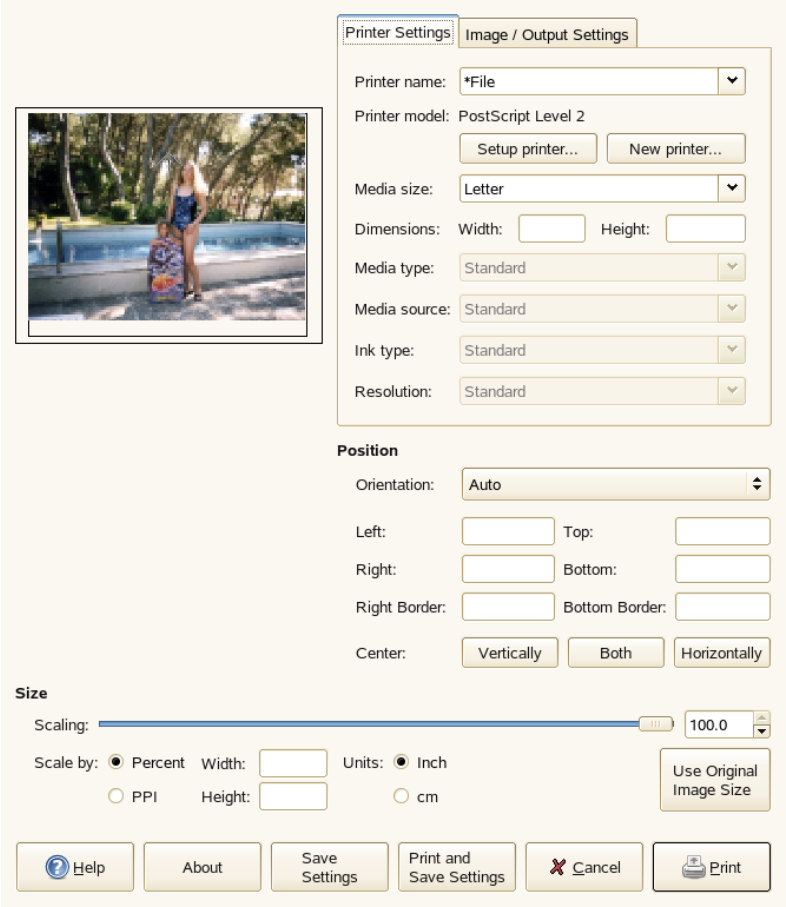
14.5.8 Special Effects

The GIMP includes a wide range of filters and scripts for enhancing images, adding special effects to them or making artistic manipulations. They are available in *Filters* and *Script-fu*. Experimenting is the best way to find out what is available. *Xtns* in the toolbox includes a number of items for creating buttons, logos, and other things.

14.6 Printing Images

To print an image, select *File* > *Print* from the image menu. If your printer is configured in the system, it should appear in the list. In some cases, it may be necessary to select an appropriate driver with *Setup Printer*. Select the appropriate paper size with *Media Size* and the type in *Media Type*. Other settings are available in the *Image / Output Settings* tab.

Figure 14-3 *The Print Dialog*



In the bottom portion of the window, adjust the image size. Press *Use Original Image Size* to take these settings from the image itself. This is recommended if you set an appropriate print size and resolution in the image. Adjust the image's position on the page with the fields in *Position* or by dragging the image in *Preview*.

When satisfied with the settings, press *Print*. To save the settings for future use, instead use *Print and Save Settings*. *Cancel* aborts printing.

14.7 For More Information

The following resources are useful for GIMP users, even if some of them apply to older versions.

- *Help* provides access to the internal help system. This documentation is also available in HTML and PDF formats at http://docs.gimp.org (http://docs.gimp.org).
- Find many tutorials explaining basic or advanced image manipulation techniques with The GIMP at http://gimp.org/tutorials/ (http://gimp.org/tutorials/).
- The GIMP User Group offers an informative Web site at http://gimp.org/tutorials/ (http://gimp.org/tutorials/).
- http://www.gimp.org (http://www.gimp.org) is the official home page of The GIMP.

- *Grokking the GIMP* by Carey Bunks is an excellent book based on an older version of The GIMP. Although some aspects of the program have changed, it can provide excellent guidance for image manipulation. An online version is available at http://gimp-savvy.com/BOOK/ (http://gimp-savvy.com/BOOK/).

Managing Your Digital Image Collection

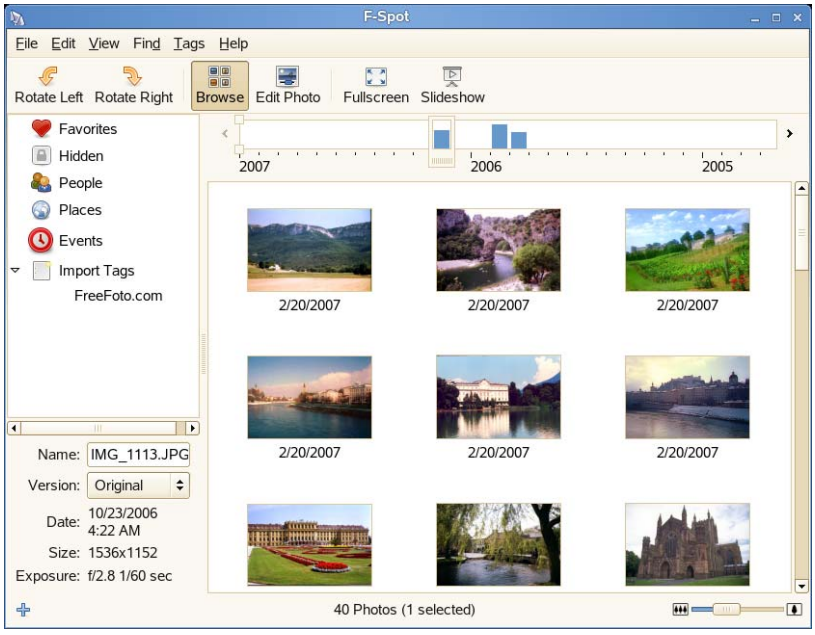
15

F-Spot is a management tool for your collection of digital images tailored for the GNOME desktop. It allows you to assign different tags to your images in order to categorize them and offers various image editing options. For example, you can remove red-eye, crop, and adjust brightness and colors. F-Spot supports sixteen common file types, including JPEG, GIF, TIFF, and RAW.

You can import photos from your hard drive, your digital camera, or your iPod*. You can also use F-Spot to create photo CDs, generate a Website gallery, or export your photos to your Flickr, 23, Picasa Web, or SmugMug account.

To access F-Spot, click *Computer* > *F-Spot Photo Browser*. The first time you run F-Spot, you can tell it where to find the images you want to import into your collection. If you already have a collection of images stored on your hard drive, enter the path to the respective directory and optionally include subfolders. F-Spot imports these images into its database.

Figure 15-1 *F-Spot Main Window*



Thumbnails of your images are displayed in the right part of the window, and detailed information for a selected image is displayed in a sidebar to the left. By default, your photos are displayed in reverse-chronological order, so your newest photos are always at the top. You can sort your photos in chronological order or reverse-alphabetical order by clicking *View* > *Reverse Order*.

A menu bar at the top of the window allows you to access the main menus. A toolbar below the menu bar offers the following options:

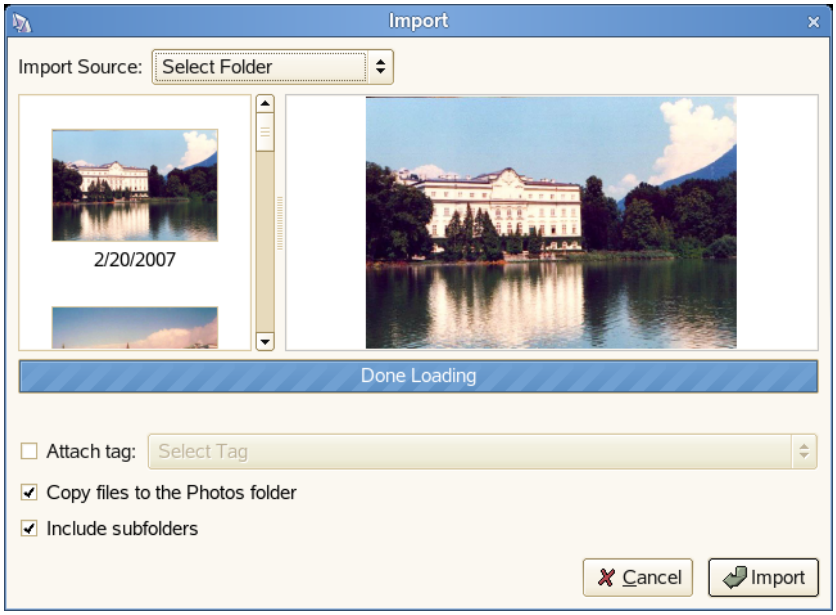
Table 15-1 *F-Spot Toolbar*

Icon	Description
Rotate (Left or Right)	Use this shortcut to change an image's orientation.
Browse	The Browse mode allows you to view and search your entire collection or tagged subsets of it. You can also use the time line to search images by creation date.
Edit Photo	This mode allows you to select one image and do some basic image processing. Details are available in Section 15.7, "Basic Photo Editing," on page 223.
Fullscreen	Switch to fullscreen display mode.
Slideshow	Start a slide show.

15.1 Importing Photos

You can import photos from your hard drive or from your digital camera (see Section 15.2, "Downloading Pictures from Your Camera," on page 217 for more information). F-Spot automatically makes copies of photos imported from your hard drive. If you don't want to copy images, uncheck *Copy files to the Photos folder* on the Import dialog box, or press Shift when dragging photos into F-Spot.

Figure 15-2 *Importing Images into F-Spot*



By default, F-Spot copies your photos to the `/Photos` directory in your home directory. You can change the directory F-Spot uses by clicking *Edit* > *Preferences*.

If all the photos you are importing are from a particular event, or if they have some other characteristic in common, you can create a tag for them so you can easily find them at a later time. During the import, select *Attach Tag*, then choose the appropriate tag from the drop-down menu.

To import photos:

1. Click *File* > *Import*.
2. Select an import source, then click *Open*.
3. After the photos are finished loading, click *Import*.

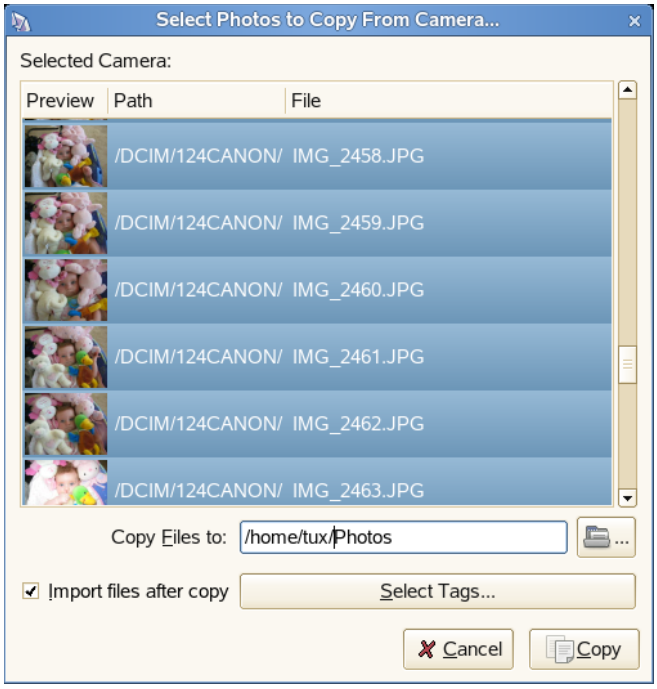
   The photos are added to your catalog.

15.2 Downloading Pictures from Your Camera

You can import new images from your digital camera by connecting it to the USB port of your computer. The type of camera is detected automatically. When you import photos from your camera, F-Spot makes copies of them so that you can clear your camera's memory.

1. Click *File* > *Import*.
2. Select your camera as the import source.

   F-Spot launches a preview window displaying all the images that are available for download from your camera. The files are copied to the target directory specified via *Copy Files to*. If *Import files after copy* is selected, all images copied from the camera are automatically imported to F-Spot's database. Tagging can be done on import, if you select the appropriate tag with *Select Tags*. If you do not want to import all images on your camera to your database, just deselect the unwanted ones in the preview window.



3. Click *Copy*.
4. When the photo transfer is complete, click *OK*.

   The photos are added to your catalog.

15.3 Getting Photo Information

When you select an image, some basic statistical information is displayed in the lower-left part of the window. This includes the filename, its version (copy or original image), the date of creation, size, and the exposure used in creating this particular photo.

To view more detailed information on a photo, including the EXIF data associated with the file, click *View* > *Metadata Browser*.

Figure 15-3 *F-Spot Metadata Browser*

15.4 Managing Tags

Use tags to categorize any of your photos to create manageable subsets of your collection. F-Spot comes with default tags, but you can change them and add new ones. If, for example, you want to organize your collection of portrait shots of your loved ones, do the following:

1. Select the *Browse* mode of F-Spot.
2. In the left frame of the F-Spot window, right-click the *People* category, then select *Create New Tag*.
   - **2a** Create a new tag called `Friends`.
   - **2b** Create a new tag called `Family`.

     The new tags appear as subcategories below the *People* category.
3. Attach tags to images or groups of selected images.

   Right-click an image, select *Attach Tag*, then select the appropriate tag for this image. To attach a tag to a group of images, click the first one, then press Shift and select the other ones without releasing the Shift key. Right-click for the tag menu and select the matching category.

You can also use the following methods to tag photos:

- Drag and drop a photo onto a tag.
- Drag and drop a tag onto the photo.
- Use the options on the *Tags* menu and the *Edit* menu.
- Select a photo, then press t to display the Tags entry bar.

The first photo you associate with a tag is used for that tag's icon. To edit a tag's name, parent tag, or icon, right-click the tag, then select *Edit Tag*.

You can change a tag's parent by dragging and dropping it where you want. You can also edit the name of a tag by selecting it and pressing F2.

After your photos have been tagged, you can browse your collection by tags. Using our earlier example, clicking *People* > *Family* limits the displayed collection to the photos tagged `Family`. Searching your collection by tag is also possible through *Find* > *Find Selected Tag*. The result of your search is displayed in the thumbnail overview window.

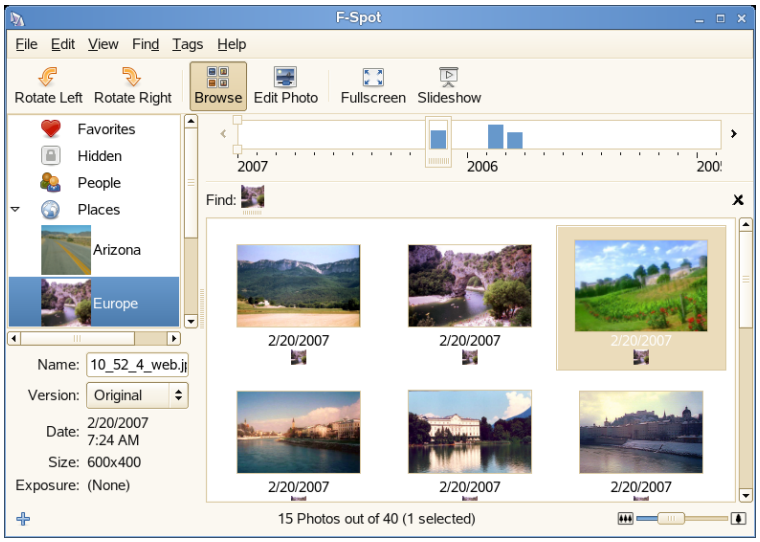
Removing tags from single images or groups of images works similarly to attaching them. The tag editing functions are also accessible on the *Tags* menu in the top menu bar.

15.5 Searching and Finding Photos

As mentioned in Section 15.4, “Managing Tags,” on page 218, tags can be used as a means to find certain images. Another way to find images is to use the *Timeline* below the toolbar. By dragging the little frame along this time line, you can limit the images displayed in the thumbnail overview to those taken in a selected time frame. F-Spot starts with a default time line, but you can edit the time span by moving the sliders to the right and left of the time line.

You can also start a search by clicking *Find* > *Show Find Bar*. With the find bar displayed, you can drag tags from the tag view to the find bar.

Figure 15-4 *Show Find Bar in F-Spot*



To find photos that are tagged with more than one tag, select the first tag in the tag view (or drag the tag onto the Find bar), then drag the second tag and drop it on top of the first. You can also right-click the second tag in the tag view, or click *Find* > *Find Selected Tag With*, then select the first tag (or group of tags).

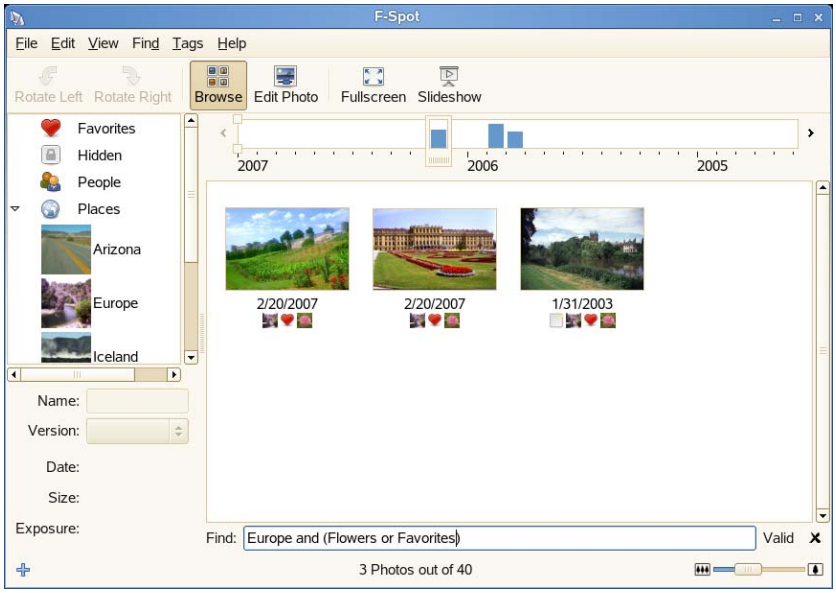
You can search for photos that don't have a particular tag by double-clicking a tag in the Find bar. Photos that don't have that tag (or any tag at all) are displayed. You can also right-click a tag in the Find bar, then select *Exclude*.

To remove a tag from the search, drag it away from the Find bar, or right-click the tag and select *Remove*.

By default, photos tagged Hidden will not be shown. You must explicitly include the Hidden tag in your search to show such photos.

There is also a type-to-find entry. Press the forward slash (/) to open it. It cannot be used at the same time as the Find bar. You can type queries such as "TagA and (TagB or (TagC and TagD))". At any point, if F-Spot recognizes what you have typed as a valid query, it will update your search. The *not* operator is not yet supported.

Figure 15-5 *Type-to-find Search*



15.6 Exporting Image Collections

F-Spot offers a range of export functions for your photo collections:

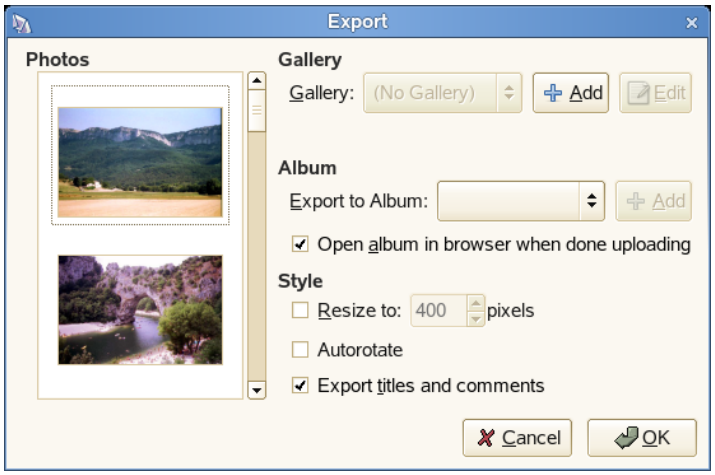
- Generating a Website Gallery (page 221)
- Exporting Photos to CD (page 221)
- Exporting Photos to a Folder (page 222)
- Posting to a Flickr, Picasa Web Album, SmugMug, or 23 Account (page 223)

15.6.1 Generating a Website Gallery

If you use the PHP software known as Gallery (http://gallery.sourceforge.net), you can post your photos to your existing album. Ensure that the Remote module in your Gallery installation is enabled (*Site Admin* > *Plugins (Get More Plugins)* > *Remote*).

PennAve (http://pennave.sourceforge.net/) is another dynamic photo gallery application. It is designed to be used in conjunction with F-Spot to organize and manage your photos.

1. Select the photos you want to export.
2. Click *File* > *Export* > *Export to Web Gallery.*



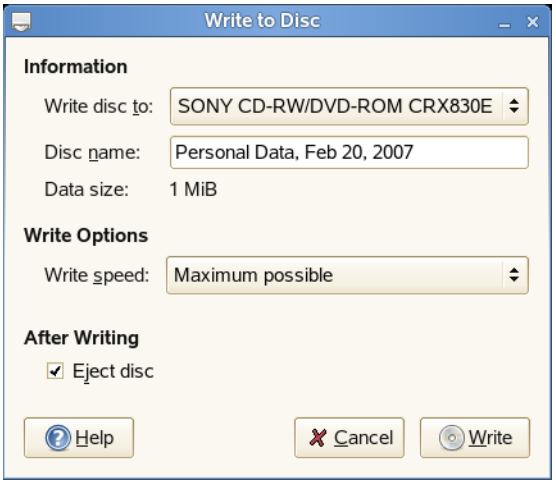
3. Select a gallery you want to export your images to, or click *Add* to add a new gallery.

   F-Spot establishes a connection to the Web location entered for your web gallery.
4. Select the album you want to export the images to, then specify whether to scale the images automatically and export titles and comments.
5. Click *OK*.

15.6.2 Exporting Photos to CD

1. Select the photos you want to burn to CD.
2. Click *File* > *Export* > *Export to CD,* then click *OK*.

F-Spot copies the files and opens the Write to Disc dialog box.



3 Assign a name to your image disk, then select the writing speed.

4 Click *Write* to start the CD writing process.

15.6.3 Exporting Photos to a Folder

1 Select the photos you want to export.

2 Click *File* > *Export* > *Export to Folder*.

3 Choose from the following export methods:

Create standalone web gallery: Exports your photos to an interactive Website, ready for you to upload.

Save the files only: Exports your photos as files within directories, without putting them into a gallery.

Create gallery using “Original”: Exports your photos ready for use with Jakub Steiner's Original Photo Gallery (http://jimmac.musichall.cz/original.php) software.

4 Click *OK*.

15.6.4 Posting to a Flickr, Picasa Web Album, SmugMug, or 23 Account

If you use Flickr (http://www.flickr.com/), Picasa Web Album (https://www.google.com/accounts/ServiceLogin?hl=en_US&continue=http%3A%2F%2Fpicasaweb.google.com%2F&passive=true&service=lh2), SmugMug (http://www.smugmug.com/), or 23 (http://www.23hq.com/), you can post your files directly from F-Spot to your account.

1 Select the photos you want to export.

2 Click *File* > *Export* > *Export to Flickr*, *Export to Picasaweb*, *Export to SmugMug*, or *Export to 23hq*.

3 Select or unselect the options you want in the Export dialog box.

The options displayed on the Export dialog box depend on the type of account you are exporting to. For example, Flickr and 23 exports require authorization in order to upload photos. To do this, click *Authorize* to open a Web browser, then log in to your account.

4 Click *OK*.

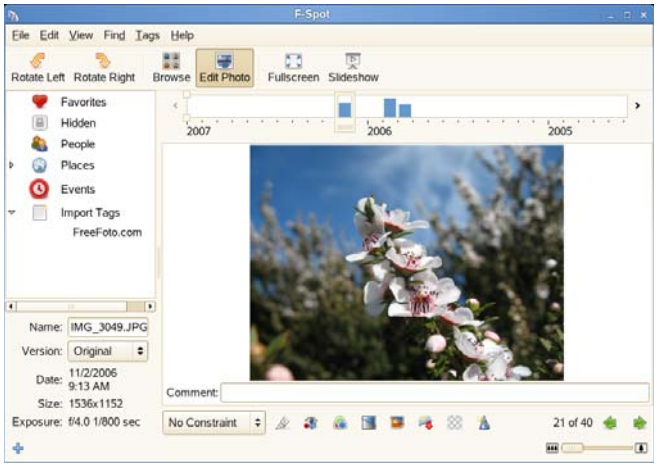
15.7 Basic Photo Editing

F-Spot offers several basic image editing functions, such as the ability to remove red-eye, crop, and adjust colors and brightness.

When you edit a photo, a new copy (called a version) is created, so your original photo is never altered. After your first edit to a photo, subsequent edits modify the same version. If you want to create multiple versions of a photo (for example, with different cropping or coloring), click *File* > *Create New Version*. To access a photo's original version, click *File* > *Version* > *Original*.

1 Select the photo you want to edit.

2 To enter edit mode, click the *Edit Photo* icon in the toolbar, double-click the image, or press Enter.



3 Choose from the following edit functions, using the toolbar below the photo or items on the *Edit* menu:

Function	Description
Adjust Colors	To adjust the brightness, contrast, and colors of a photo, click the *Adjust the photo colors* icon to open the adjustment dialog box. Change the settings you want, then click *OK*.
AutoColor	This effect automatically adjusts color levels to make a color-balanced picture. It works best for pictures taken with automatic white balance. Click the *Automatically adjust the colors* icon to access this feature.
Comment	You can add a description or a comment to a photo by clicking the text entry box below the photo and entering text.
Convert to Black and White	Converts the photo to black and white.
Convert to Sepia Tones	Converts the photo to sepia tones.
Crop	Cropping an image is a great way to improve the quality of a photograph by improving how it is framed. You crop a photo by selecting the part of the photo you want to keep. If you want your photo to be the exact dimensions necessary for a certain print size, you can constrain the kind of selection F-Spot will allow you to draw by choosing the appropriate size from the *Constraint* drop-down list. See the description of the Remove Red-Eye function for details on making a selection on your photo. After you make your crop selection, click the *Crop* icon beneath the photo to finalize the crop. If you are working with the original photo, cropping creates a new version of your photo.
Remove Red-Eye	To remove red-eye from a photo, select a zone containing the eyes. You might want to zoom in on the image to accurately select the eyes in the photo. You should be able to correct both eyes on the same person at once, or even the eyes from multiple people at once. If this doesn't work, or if the selected zone contains some vivid red parts (such as lips), you will probably have to correct one red eye at a time. To make your selection, click one corner of the rectangle that will be your selection, then drag your mouse to the diagonal corner and release it. You can resize your selection by dragging its edges, and you can move it by clicking in the middle of it and dragging it to where you want it. After you have selected a zone, remove the red by clicking the *Red-eye* icon beneath the photo.
Sharpen	Access this function by clicking *Edit* > *Sharpen*. Adjust the values for *Amount*, *Radius*, and *Threshold* to your needs, then click *OK*.

Function	Description
Soft Focus	Sharpening one region of a picture while blurring all the rest is a way to emphasize a particular area and grab attention. The soft focus effect is a way to emulate a lens that allows shooting with a short distance in front of and beyond the subject that appears to be in focus. Choose the central point of the area you want to be in focus, then click the *Soft Focus* icon beneath the photo. Adjust the amount of blurring, then click *Apply*.
Straighten	The Straighten effect helps you level a photo and is useful when editing landscapes taken without a tripod (when the imaginary line of horizon is not at 0°). This tool rotates a photo by a specified angle and automagically crops the resulted image so that you always see a perfect rectangle.

4 (Optional) If you want to edit another photo, use the arrow keys at the bottom right to switch to a new photo.

5 To exit the edit mode, click *Browse* on the toolbar.

TIP: Professional image editing can also be done with The GIMP. For more information, see Chapter 14, "Manipulating Graphics with The GIMP," on page 203.

15.8 Sharing Photos

You can use either of the following methods to share your photos using F-Spot. Both methods share only the photos you have selected when you run them.

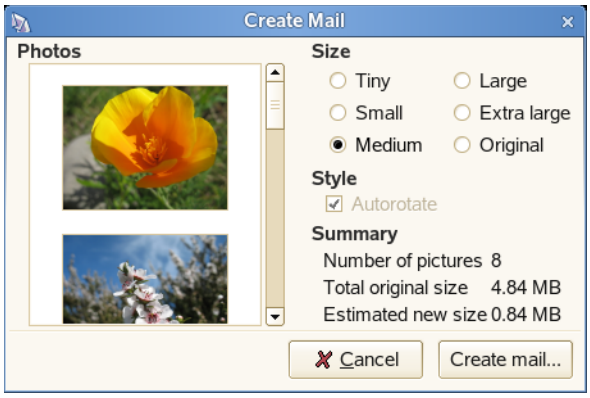
- E-mailing Photos (page 225)
- Printing Photos (page 226)

15.8.1 E-mailing Photos

You can e-mail your photos directly from F-Spot, sending them as-is (original size) or resizing them.

1 Select the photos you want to e-mail.

2 Click *File* > *Send Mail*.



3 Select a size for your photos.

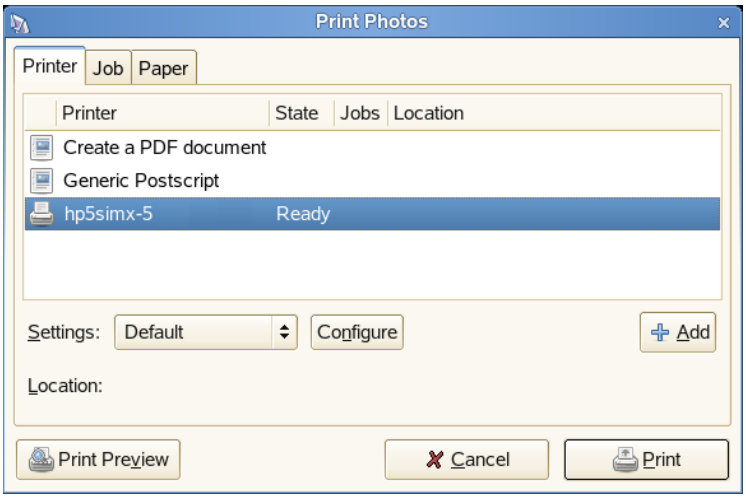
4 Click *Create mail*.

Your default e-mail program opens, with your photos attached to a new mail message.

15.8.2 Printing Photos

1 Select the photos you want to print.

2 Click *File* > *Print*.



3 Select the print options you want, such as the printer you want to use or the page orientation, then click *Print* to print your photos.

Playing and Managing Your Music with Helix Banshee

16

Helix* Banshee™ is a GNOME music management and playback application that lets you import CDs, sync your music collection to an iPod* or other digital audio player, play music directly from an iPod (or other digital audio player), create playlists with songs from your library, create audio and MP3 CDs from subsets of your library, and subscribe to, download, and listen to your favorite podcasts. Helix Banshee also supports streaming audio through its Internet Radio plug-in.

To open Helix Banshee, click *Computer* > *Helix Banshee Music Player*.

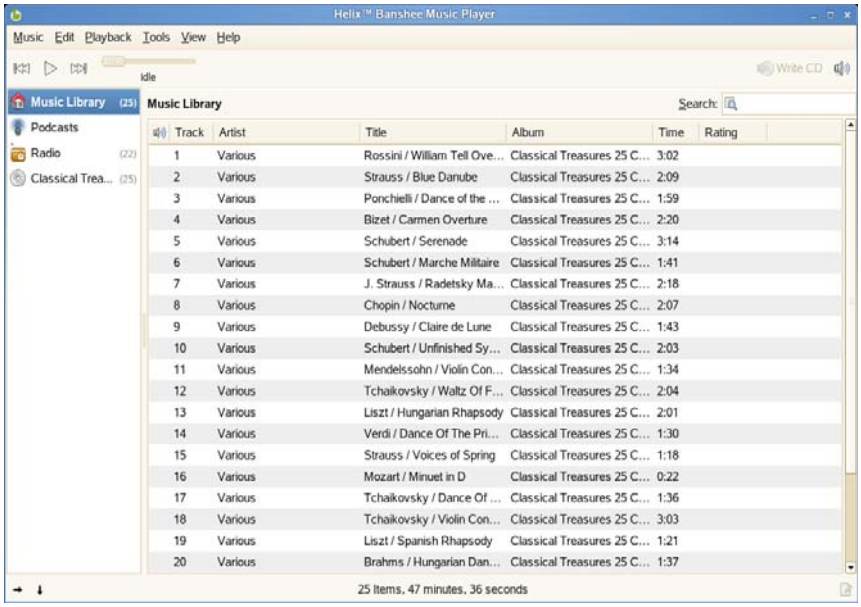
The first time you open Helix Banshee, you are prompted to accept a license agreement, after which you are prompted to import music. Choose an import source, such as your home directory, a local folder, or a local file, then click *Import Music Source*.

Figure 16-1 *Import Music Library*

Import Music to Library
Import Music to Library
Your music library is empty. You may import new music into your library now, or choose to do so later.
Choose an import source:
Local Folder
Do not show this dialog again
Cancel
Import Music Source

After successfully importing your music, your library is displayed.

Figure 16-2 *Helix Banshee Library*


Helix™ Banshee Music Player
Music Edit Playback Tools View Help
idle
Write CD
Music Library (25)
Podcasts
Radio (22)
Classical Trea... (25)
Music Library
Search:
Track Artist Title Album Time Rating
1 Various Rossini / William Tell Ove... Classical Treasures 25 C... 3:02
2 Various Strauss / Blue Danube Classical Treasures 25 C... 2:09
3 Various Ponchielli / Dance of the ... Classical Treasures 25 C... 1:59
4 Various Bizet / Carmen Overture Classical Treasures 25 C... 2:20
5 Various Schubert / Serenade Classical Treasures 25 C... 3:14
6 Various Schubert / Marche Militaire Classical Treasures 25 C... 1:41
7 Various J. Strauss / Radetsky Ma... Classical Treasures 25 C... 2:18
8 Various Chopin / Nocturne Classical Treasures 25 C... 2:07
9 Various Debussy / Claire de Lune Classical Treasures 25 C... 1:43
10 Various Schubert / Unfinished Sy... Classical Treasures 25 C... 2:03
11 Various Mendelssohn / Violin Con... Classical Treasures 25 C... 1:34
12 Various Tchaikovsky / Waltz Of F... Classical Treasures 25 C... 2:04
13 Various Liszt / Hungarian Rhapsody Classical Treasures 25 C... 2:01
14 Various Verdi / Dance Of The Pri... Classical Treasures 25 C... 1:30
15 Various Strauss / Voices of Spring Classical Treasures 25 C... 1:18
16 Various Mozart / Minuet in D Classical Treasures 25 C... 0:22
17 Various Tchaikovsky / Dance Of ... Classical Treasures 25 C... 1:36
18 Various Tchaikovsky / Violin Con... Classical Treasures 25 C... 3:03
19 Various Liszt / Spanish Rhapsody Classical Treasures 25 C... 1:21
20 Various Brahms / Hungarian Dan... Classical Treasures 25 C... 1:37
25 Items, 47 minutes, 36 seconds

16.1 Listening to Music

To listen to music, Helix Banshee needs to know what is available to listen to. You can listen to music in your library, which means that you will need to import music from an external source such as a file, folder, or CD, or you can listen to music directly off a CD. You can also listen to music on Internet radio stations, podcasts, or your digital audio player (see Section 16.3, “Using Helix Banshee with Your Digital Audio Player,” on page 237 for more information).

- Section 16.1.1, “Importing Music,” on page 228
- Section 16.1.2, “Playing Your Music,” on page 229
- Section 16.1.3, “Ripping Your Music,” on page 230
- Section 16.1.4, “Listening to Internet Radio,” on page 231
- Section 16.1.5, “Listening to Podcasts,” on page 232

16.1.1 Importing Music

Helix Banshee can import music from a file, folder, or CD.

1. In Helix Banshee, click *Music* > *Import Music*.
2. Select an import source.
3. Click *Import Music Source*.

Helix Banshee can automatically query MusicBrainz (http://musicbrainz.org) for extra information about tracks that you import and fetch cover art for display when you play a song. To enable this feature, click *Edit* > *Plugins*, then select *Metadata Searcher*.

16.1.2 Playing Your Music

To play a song, simply select the song in the library, then click the Play button ( ).

Use the buttons on the upper-left corner ( ) to pause a song or play the next or previous song. Use to adjust the volume. You can also use the items on the *Playback* menu to repeat or shuffle songs.

Helix Banshee also has an integrated CD player. When you insert a music CD, your CD title appears in the left panel. Select the title, then click the Play button to play your full CD.

Notification Area Icon

You can keep Helix Banshee hidden in the notification area when you're not interacting with it by minimizing the Helix Banshee window. You will see a pop-up identifying the current song when a track changes.

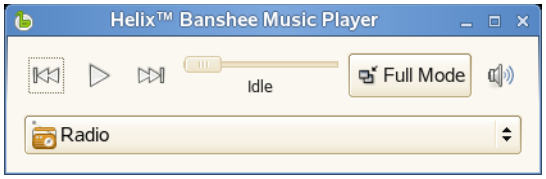
If you don’t want to see the pop-ups, click *Edit* > *Plugins* > *Notification Area Icon* > *Configuration*, then deselect *Show notifications when song changes*.

Figure 16-3 *Helix Banshee Notification Area Pop-up*

Mini Mode

You can also use the Mini Mode feature to condense the interface and free up valuable desktop space. You can switch between your library, playlists, and music devices while in Mini Mode. To activate Mini Mode, click *View* > *Mini mode*.

Figure 16-4 *Helix Banshee in Mini Mode*

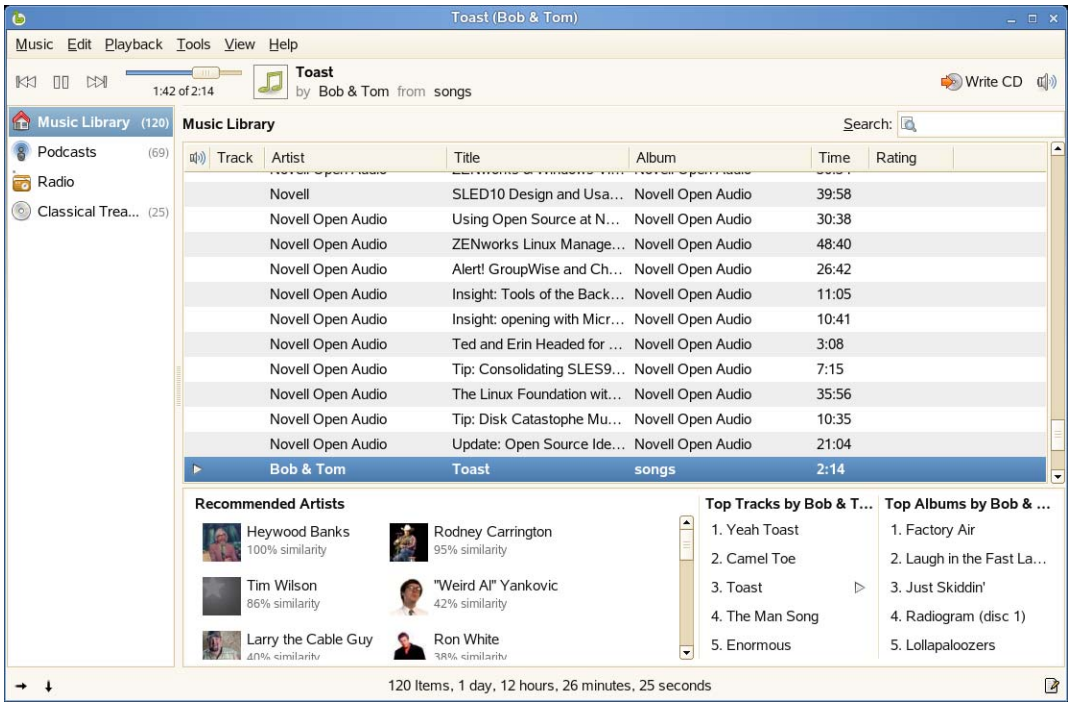


Music Recommendations

Helix Banshee automatically recommends music that it thinks you might like, based on the currently playing song. It finds artists and popular songs that others with similar musical tastes enjoy.

If you don't want to receive recommendations, click *Edit* > *Plugins*, then deselect *Music Recommendations*.

Figure 16-5 *Helix Banshee Music Recommendations*

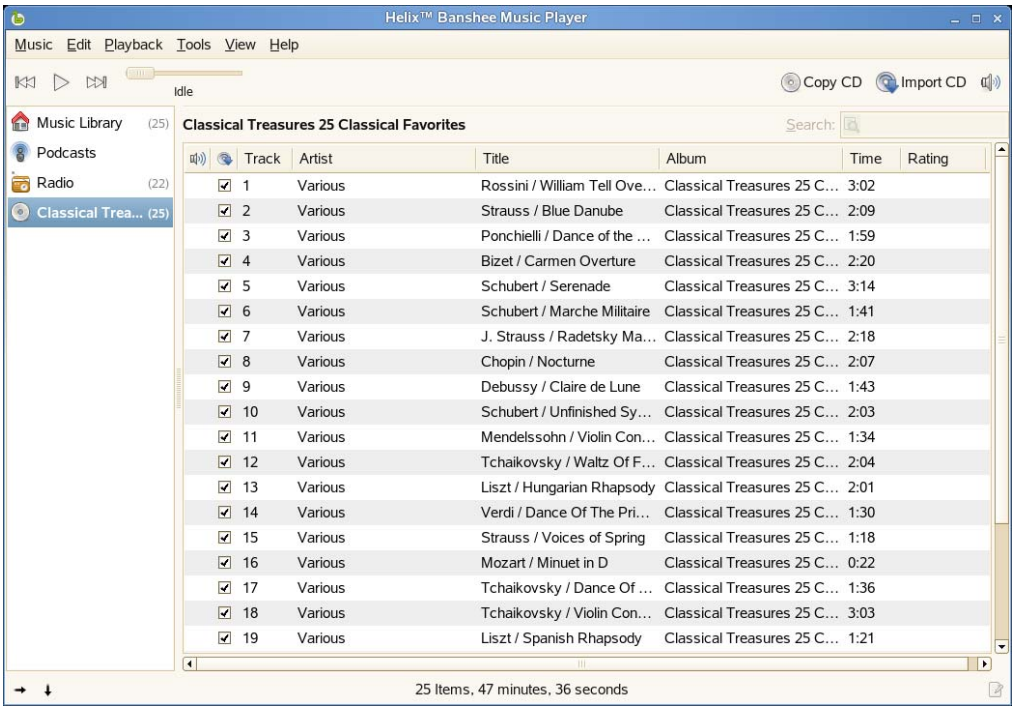

Toast (Bob & Tom)
Music Edit Playback Tools View Help
1:42 of 2:14
Toast
by Bob & Tom from songs
Write CD
Music Library (120)
Podcasts (69)
Radio
Classical Trea... (25)
Music Library
Search:
Track Artist Title Album Time Rating
Novell SLED10 Design and Usa... Novell Open Audio 39:58
Novell Open Audio Using Open Source at N... Novell Open Audio 30:38
Novell Open Audio ZENworks Linux Manage... Novell Open Audio 48:40
Novell Open Audio Alert! GroupWise and Ch... Novell Open Audio 26:42
Novell Open Audio Insight: Tools of the Back... Novell Open Audio 11:05
Novell Open Audio Insight: opening with Micr... Novell Open Audio 10:41
Novell Open Audio Ted and Erin Headed for ... Novell Open Audio 3:08
Novell Open Audio Tip: Consolidating SLES9... Novell Open Audio 7:15
Novell Open Audio The Linux Foundation wit... Novell Open Audio 35:56
Novell Open Audio Tip: Disk Catastophe Mu... Novell Open Audio 10:35
Novell Open Audio Update: Open Source Ide... Novell Open Audio 21:04
Bob & Tom Toast songs 2:14
Recommended Artists
Heywood Banks 100% similarity
Rodney Carrington 95% similarity
Tim Wilson 86% similarity
"Weird Al" Yankovic 42% similarity
Larry the Cable Guy
Ron White
Top Tracks by Bob & T...
1. Yeah Toast
2. Camel Toe
3. Toast
4. The Man Song
5. Enormous
Top Albums by Bob & ...
1. Factory Air
2. Laugh in the Fast La...
3. Just Skiddin'
4. Radiogram (disc 1)
5. Lollapaloozers
120 Items, 1 day, 12 hours, 26 minutes, 25 seconds

16.1.3 Ripping Your Music

To rip music from a CD and add it to your library:

1 Insert a CD into your CD or DVD drive.

Helix Banshee automatically lists the CD as a source in the left menu.


Helix™ Banshee Music Player
Music Edit Playback Tools View Help
Idle
Copy CD
Import CD
Music Library (25)
Podcasts
Radio (22)
Classical Trea... (25)
Classical Treasures 25 Classical Favorites
Search:
Track Artist Title Album Time Rating
1 Various Rossini / William Tell Ove... Classical Treasures 25 C... 3:02
2 Various Strauss / Blue Danube Classical Treasures 25 C... 2:09
3 Various Ponchielli / Dance of the ... Classical Treasures 25 C... 1:59
4 Various Bizet / Carmen Overture Classical Treasures 25 C... 2:20
5 Various Schubert / Serenade Classical Treasures 25 C... 3:14
6 Various Schubert / Marche Militaire Classical Treasures 25 C... 1:41
7 Various J. Strauss / Radetsky Ma... Classical Treasures 25 C... 2:18
8 Various Chopin / Nocturne Classical Treasures 25 C... 2:07
9 Various Debussy / Claire de Lune Classical Treasures 25 C... 1:43
10 Various Schubert / Unfinished Sy... Classical Treasures 25 C... 2:03
11 Various Mendelssohn / Violin Con... Classical Treasures 25 C... 1:34
12 Various Tchaikovsky / Waltz Of F... Classical Treasures 25 C... 2:04
13 Various Liszt / Hungarian Rhapsody Classical Treasures 25 C... 2:01
14 Various Verdi / Dance Of The Pri... Classical Treasures 25 C... 1:30
15 Various Strauss / Voices of Spring Classical Treasures 25 C... 1:18
16 Various Mozart / Minuet in D Classical Treasures 25 C... 0:22
17 Various Tchaikovsky / Dance Of ... Classical Treasures 25 C... 1:36
18 Various Tchaikovsky / Violin Con... Classical Treasures 25 C... 3:03
19 Various Liszt / Spanish Rhapsody Classical Treasures 25 C... 1:21
25 Items, 47 minutes, 36 seconds

2 Select the CD title in the source list on the left, then click *Import CD* in the upper-right corner.

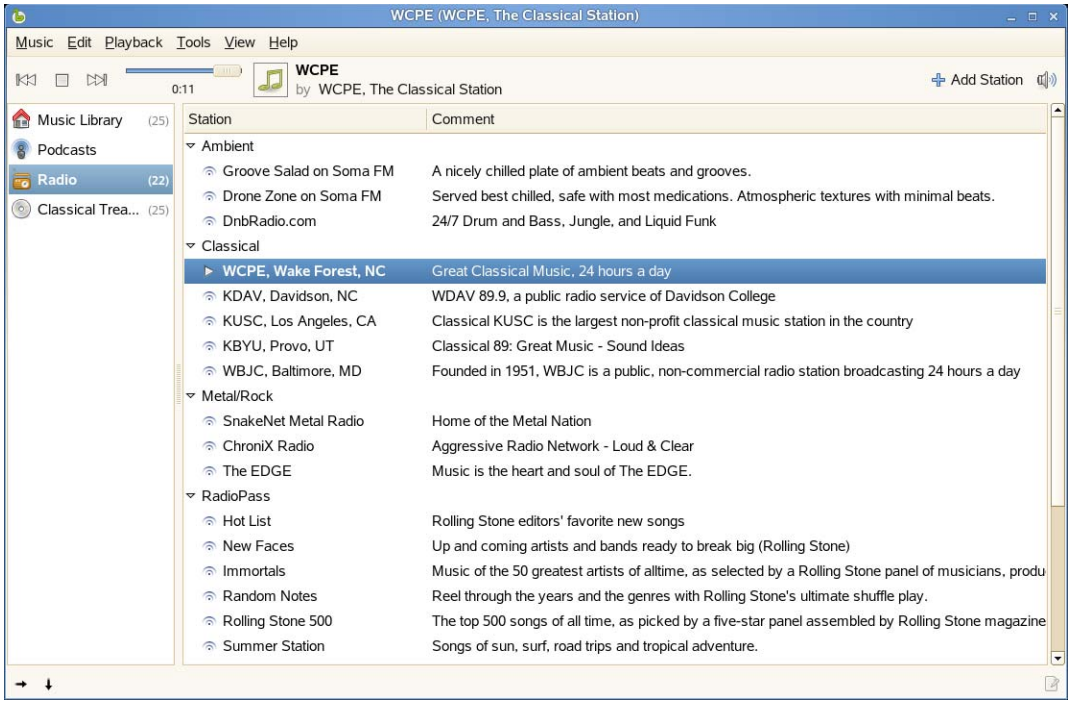
16.1.4 Listening to Internet Radio

You can use Helix Banshee to listen to Internet radio stations and streaming audio. The Radio view in Helix Banshee automatically lists several common Internet radio stations maintained on banshee-project.org (http://banshee-project.org). You can also add your own stations.

Listening to an Internet Radio Station

To listen to Internet radio stations, select *Radio* in the source list on the left, then double-click the station you want to listen to.

Figure 16-6 *Internet Radio Stations in Helix Banshee*


WCPE (WCPE, The Classical Station)
Music Edit Playback Tools View Help
0:11
WCPE
by WCPE, The Classical Station
Add Station
Music Library (25)
Podcasts
Radio (22)
Classical Trea... (25)
Station
Comment
Ambient
Groove Salad on Soma FM
A nicely chilled plate of ambient beats and grooves.
Drone Zone on Soma FM
Served best chilled, safe with most medications. Atmospheric textures with minimal beats.
DnbRadio.com
24/7 Drum and Bass, Jungle, and Liquid Funk
Classical
WCPE, Wake Forest, NC
Great Classical Music, 24 hours a day
KDAV, Davidson, NC
WDAV 89.9, a public radio service of Davidson College
KUSC, Los Angeles, CA
Classical KUSC is the largest non-profit classical music station in the country
KBYU, Provo, UT
Classical 89: Great Music - Sound Ideas
WBJC, Baltimore, MD
Founded in 1951, WBJC is a public, non-commercial radio station broadcasting 24 hours a day
Metal/Rock
SnakeNet Metal Radio
Home of the Metal Nation
ChroniX Radio
Aggressive Radio Network - Loud & Clear
The EDGE
Music is the heart and soul of The EDGE.
RadioPass
Hot List
Rolling Stone editors' favorite new songs
New Faces
Up and coming artists and bands ready to break big (Rolling Stone)
Immortals
Music of the 50 greatest artists of alltime, as selected by a Rolling Stone panel of musicians, produ
Random Notes
Reel through the years and the genres with Rolling Stone's ultimate shuffle play.
Rolling Stone 500
The top 500 songs of all time, as picked by a five-star panel assembled by Rolling Stone magazine
Summer Station
Songs of sun, surf, road trips and tropical adventure.

Adding a New Internet Radio Station

1 Right-click *Radio* in the source list, then click *Add Station*.

Add new radio station
Enter the Group, Title and URL of the radio station you wish to add. A description is optional.
Station Group: Classical
Station Title:
Stream URL:
Description:
Cancel
Save

2 Enter the stream details in the Add new radio station dialog box, then click *Save*.

The new station is added to your list.

16.1.5 Listening to Podcasts

Helix Banshee lets you subscribe, download, and listen to your favorite Podcasts. Podcasting is a form of audio blogging where users subscribe to a feed of shows and the episodes are downloaded and managed for offline listening.

Subscribing to a Podcast

1. Click *Music* > *Subscribe to Podcast*.
2. Enter the URL of the podcast you want to subscribe to.
3. (Optional) Click *Advanced*, then specify what happens when new episodes of this podcast are available.

   You can choose to download only the most recent episode, download all episodes, or decide which episodes you want to download when new episodes become available.
4. Click *Subscribe*.

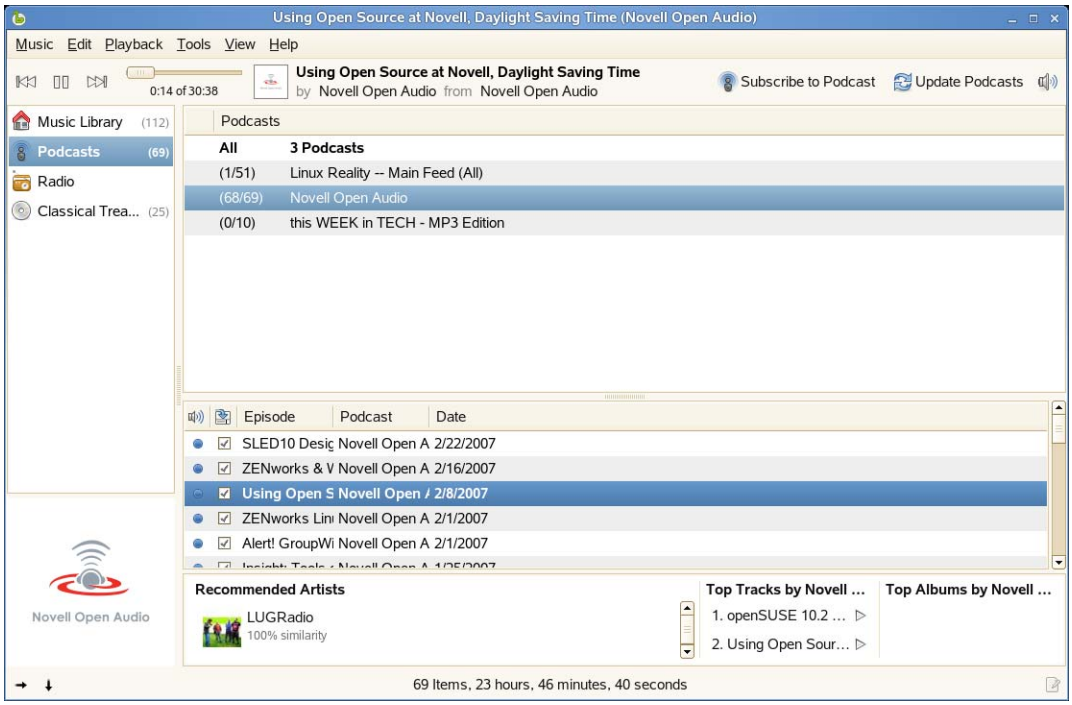
   The new podcast is added to your list.

Listening to a Podcast

To listen to a podcast, select *Podcasts* in the source list, then double-click the podcast you want to listen to.

Use the options on the *Tools* > *Podcast* menu to update a podcast, subscribe to other podcasts, or find new podcasts.

Figure 16-7 *Podcasts in Helix Banshee*


Using Open Source at Novell, Daylight Saving Time (Novell Open Audio)
Music Edit Playback Tools View Help
0:14 of 30:38
Using Open Source at Novell, Daylight Saving Time
by Novell Open Audio from Novell Open Audio
Subscribe to Podcast
Update Podcasts
Music Library (112)
Podcasts (69)
Radio
Classical Trea... (25)
Podcasts
All 3 Podcasts
(1/51) Linux Reality -- Main Feed (All)
(68/69) Novell Open Audio
(0/10) this WEEK in TECH - MP3 Edition
Episode Podcast Date
SLED10 Desig Novell Open A 2/22/2007
ZENworks & V Novell Open A 2/16/2007
Using Open S Novell Open A 2/8/2007
ZENworks Lin Novell Open A 2/1/2007
Alert! GroupWi Novell Open A 2/1/2007
Novell Open Audio
Recommended Artists
LUGRadio
100% similarity
Top Tracks by Novell ...
1. openSUSE 10.2 ...
2. Using Open Sour...
Top Albums by Novell ...
69 Items, 23 hours, 46 minutes, 40 seconds

16.2 Managing Your Music Library

Helix Banshee gives you several ways to organize your music. You can create playlists, which allow you to put similar songs together, and you can sort and rate songs. You can also view a variety of information about your music collection, including playback statistics (when a song was last played and how many times).

- Section 16.2.1, “Organizing Your Music,” on page 234

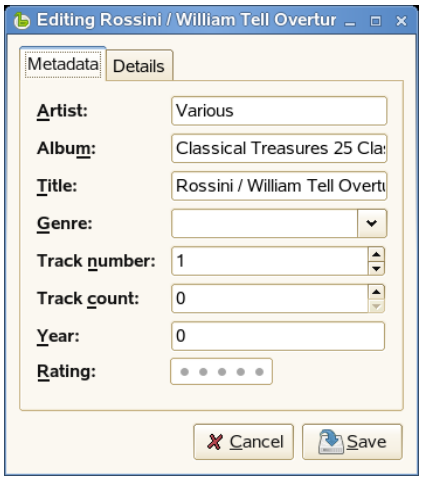
- Section 16.2.2, “Creating Smart Playlists,” on page 235

16.2.1 Organizing Your Music

To create a new playlist, click *Music* > *New Playlist* (or press Ctrl+N). A new playlist is displayed in the left panel. Double-click *New Playlist*, then enter the name you want. You can drag and drop songs from one playlist to another, or use the options on the *Edit* menu to remove or delete songs and rename or delete playlists. You can sort a playlist by clicking the title of the column. Click the column again to reverse the sort. You can also right-click *Music Library*, then click *Sort Playlists*.

You can edit the name of the artist, album, and title, as well as the track number and track count. Simply select a song, then click *Edit* > *Edit Song Metadata*. You can also rate your music, which gives you the ability to play only songs with a certain rating. To rate a song, select the number of stars you want to assign in the *Rating* field.

Figure 16-8 *Editing Song Dialog Box*

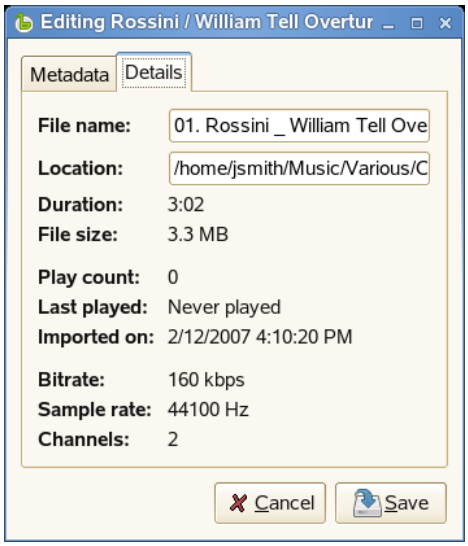


If you want to set all fields in a group to the same value, select multiple songs in a playlist, then click *Edit* > *Edit Song Metadata*. Make the changes you want, then click *Apply common field values to all tracks*. You can also use the *Back* and *Forward* buttons to cycle through the selected songs.

Figure 16-9 *Editing Multiple Songs Dialog Box*

Click the *Details* tab to view detailed information about the selected song, including when a song was last played, when the song was imported, how long the song is, and how many times the song has been played.

Figure 16-10 *Details Dialog Box*



16.2.2 Creating Smart Playlists

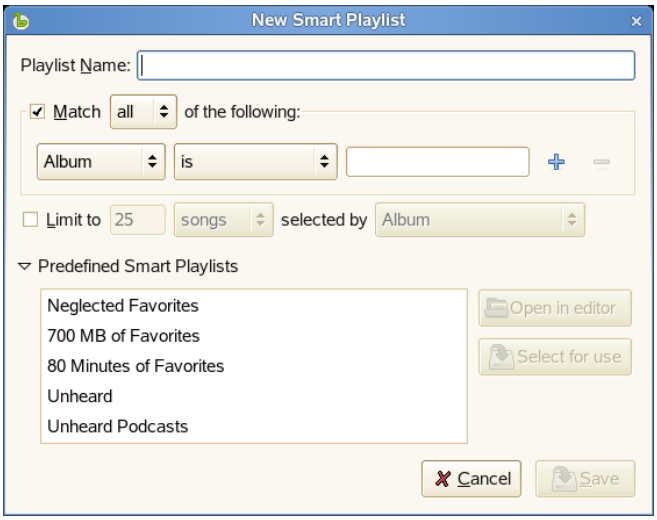
You can create playlists that automatically add and remove songs based on criteria you specify. For example, a smart playlist can contain songs you rated as five stars but that you haven't listened to for six months. Another smart playlist can contain all songs published in 2006 that you have labeled with the Classical genre.

Helix Banshee automatically updates all smart playlists when a change is made to your music library. If you import new songs, Helix Banshee checks to see if they match any of your available smart playlists. When applicable, Helix Banshee also updates your smart playlists if you just listened to a song or updated a song's metadata.

Creating a Smart Playlist

1. In Helix Banshee, click *Music* > *New Smart Playlist*.
2. Specify a name for the smart playlist, then select the criteria for songs in this playlist to match.

Use the plus and minus symbols to add or remove criteria. To use an already defined smart playlist, click *Predefined Smart Playlists*, then select the playlist you want.



3 Click *Save*.

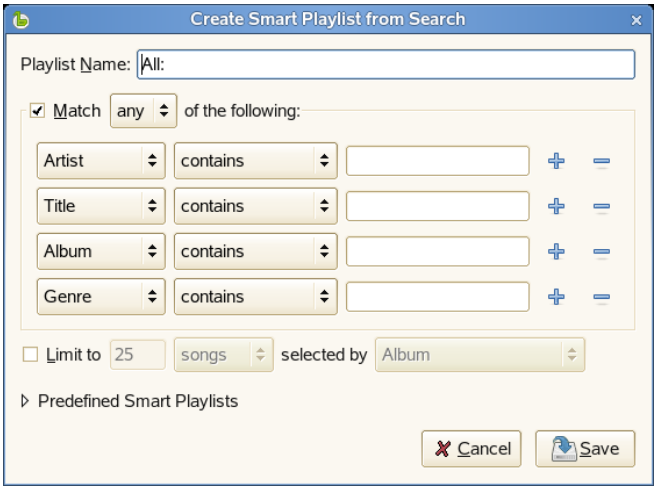
The smart playlist is added to your music library.

Creating a Smart Playlist from a Search

You can create a smart playlist based on search criteria. For example, if you search for all songs in your music library by a certain artist, Helix Banshee can create a smart playlist in which all songs by that artist are selected.

1 In Helix Banshee, click *Music* > *New Smart Playlist from Search*.

2 Specify a name for the smart playlist, then specify the search criteria you want.



Use the plus and minus symbols to add or remove criteria. To use an already defined smart playlist, click *Predefined Smart Playlists*, then select the playlist you want.

3 Click *Save*.

The smart playlist is added to your music library.

16.3 Using Helix Banshee with Your Digital Audio Player

Helix Banshee supports several digital audio players, including Apple* iPods, Creative* Nomads*, Dell* DJs, and almost any other generic USB Mass Storage player. Instead of having to use separate applications to get support for your audio devices, Helix Banshee gives you easy, integrated support and lets you copy your music to or from your device, no matter what format the music is in.

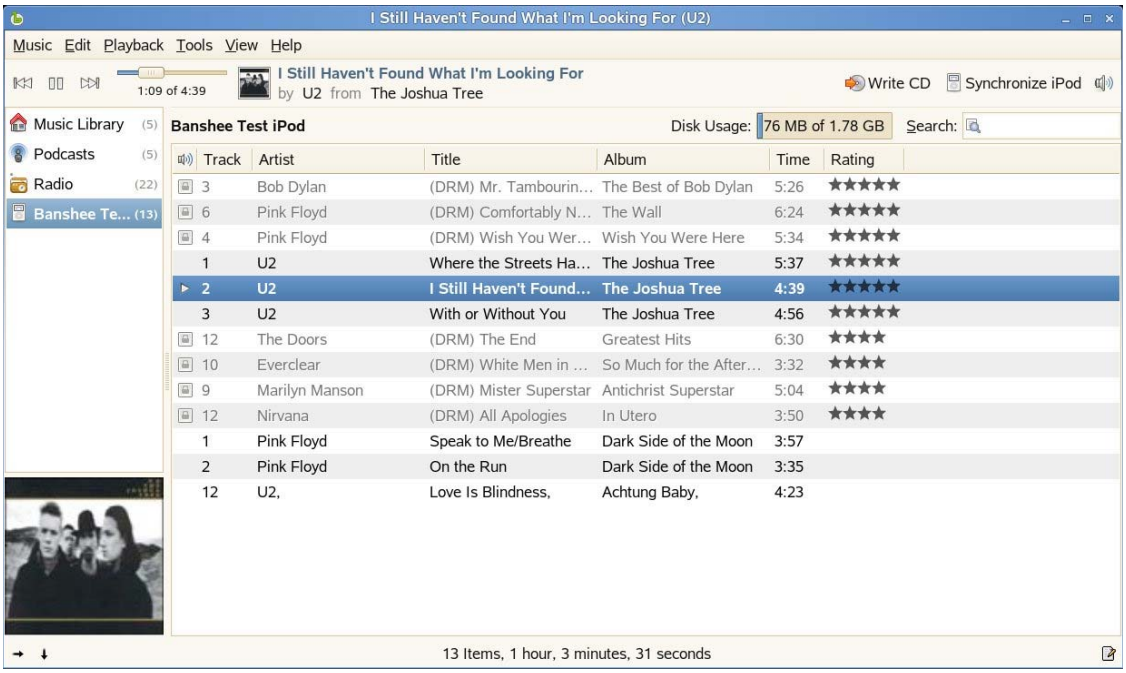
- Section 16.3.1, “Playing Music from Your Digital Audio Player,” on page 237
- Section 16.3.2, “Adding Music to Your Digital Audio Player,” on page 238
- Section 16.3.3, “Copying Music on Your Digital Audio Player to Helix Banshee,” on page 238
- Section 16.3.4, “Synchronizing Your Library,” on page 238

16.3.1 Playing Music from Your Digital Audio Player

To play music from your digital audio player, simply plug your player into your system. After your system recognizes your device, an icon is displayed in the left panel in Helix Banshee.

Select the icon to display the music on your device in the right panel. Double-click the song you want to listen to.

Figure 16-11 *Helix Banshee MP3 Playback from an iPod Mini*


I Still Haven't Found What I'm Looking For (U2)
Music Edit Playback Tools View Help
1:09 of 4:39
I Still Haven't Found What I'm Looking For
by U2 from The Joshua Tree
Write CD
Synchronize iPod
Music Library (5)
Podcasts (5)
Radio (22)
Banshee Te... (13)
Banshee Test iPod
Disk Usage: 76 MB of 1.78 GB
Search:
Track Artist Title Album Time Rating
3 Bob Dylan (DRM) Mr. Tambourin... The Best of Bob Dylan 5:26
6 Pink Floyd (DRM) Comfortably N... The Wall 6:24
4 Pink Floyd (DRM) Wish You Wer... Wish You Were Here 5:34
1 U2 Where the Streets Ha... The Joshua Tree 5:37
2 U2 I Still Haven't Found... The Joshua Tree 4:39
3 U2 With or Without You The Joshua Tree 4:56
12 The Doors (DRM) The End Greatest Hits 6:30
10 Everclear (DRM) White Men in ... So Much for the After... 3:32
9 Marilyn Manson (DRM) Mister Superstar Antichrist Superstar 5:04
12 Nirvana (DRM) All Apologies In Utero 3:50
1 Pink Floyd Speak to Me/Breathe Dark Side of the Moon 3:57
2 Pink Floyd On the Run Dark Side of the Moon 3:35
12 U2, Love Is Blindness, Achtung Baby, 4:23
13 Items, 1 hour, 3 minutes, 31 seconds

To view or change device properties, right-click your device, then select *Source Properties*. From there, you can view various pieces of information. If you have an iPod, you can update the owner's name.

16.3.2 Adding Music to Your Digital Audio Player

To add tracks to your player, simply drag the tracks you want from your Music Library to your device.

Helix Banshee transparently supports transcoding of your songs for any device. You can have your music library in any number of formats (including, but not limited to, FLAC, Ogg Vorbis, MP3, and AAC), and it will be transparently transcoded before it is sent to your digital audio player.

To remove tracks, select your device in the list of sources, right-click the song you want to delete, then click *Remove Song(s)*.

16.3.3 Copying Music on Your Digital Audio Player to Helix Banshee

Helix Banshee supports importing music from your digital audio player to your music library. Simply drag and drop the songs from your digital audio player to your Music Library and they are copied automatically. You can also import all of the music on your digital audio player by right-clicking your player in the source list and selecting *Import*.

Figure 16-12 *Importing Music from Your Digital Audio Player to Helix Banshee*

16.3.4 Synchronizing Your Library

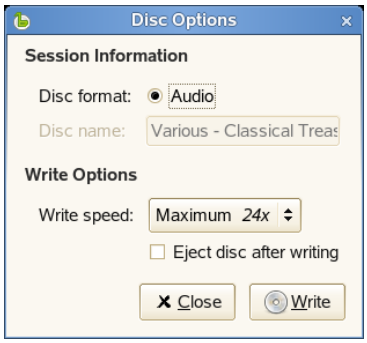
To keep your digital audio player up to date with your Helix Banshee Library, select your player in the source list, then click *Synchronize* in the upper-right corner.

Helix Banshee also synchronizes your ratings and cover art in your tracks to your iPod.

16.4 Creating Audio and MP3 CDs

1. Insert a blank CD in your CD or DVD drive.
2. Select the songs you want to burn, then click the *Write CD* button in the upper-right side of Helix Banshee.
3. Specify the disk options you want, then click *Write*.

For example, click *Eject disk after writing* if you want Helix Banshee to eject your CD when the writing is completed.



You can track the status of the burn in the bottom-left corner of Helix Banshee. A message box appears when the burn is complete.

4 Click *OK*.

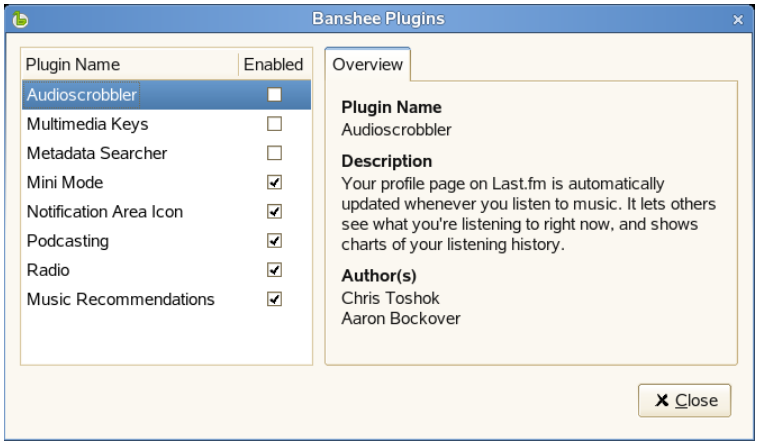
16.5 Sharing Your Music

You can automatically update your online Audioscrobbler (http://www.last.fm) profile with the music you listen to in Helix Banshee. This lets others see what you are listening to, and gives you access to charts detailing your listening history. If you join groups such as the Banshee Group (http://www.last.fm/group/Banshee), you can also see what other people are listening to.

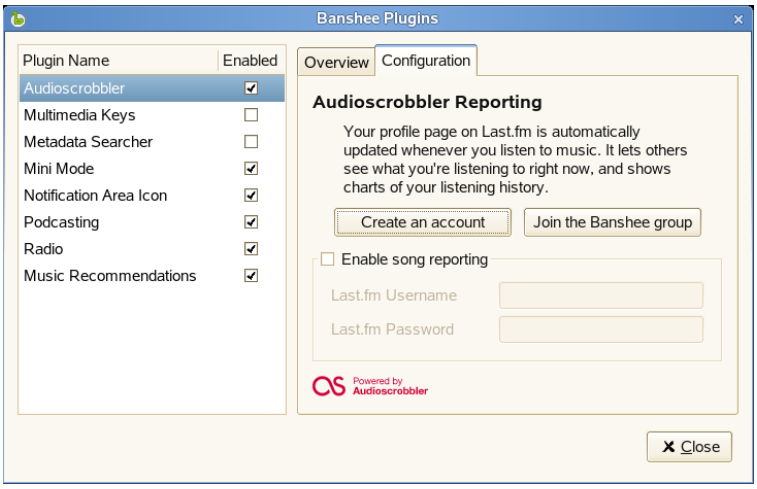
Before you can share your music, you need to enable the Audiosrobbler plug-in and enable song reporting.

1 In Helix Banshee, click *Edit* > *Plugins*.

2 Select the check box to the right of *Audioscrobbler* in the left column.



A *Configuration* tab appears to the right of the *Overview* tab in the right pane. You can also configure Audioscrobbler later by clicking *Tools* > *Audioscrobbler* > *Configure*.



3 Click the *Configuration* tab.

4 If you have already registered with Last.fm (http://www.last.fm/), click *Enable song reporting*, then specify your Last.fm username and password.

If you have not previously registered with Last.fm, click *Create an account*. This opens the Last.fm Web site where you can register. Click *Enable song reporting*, then specify your Last.fm username and password.

5 Click *Close*.

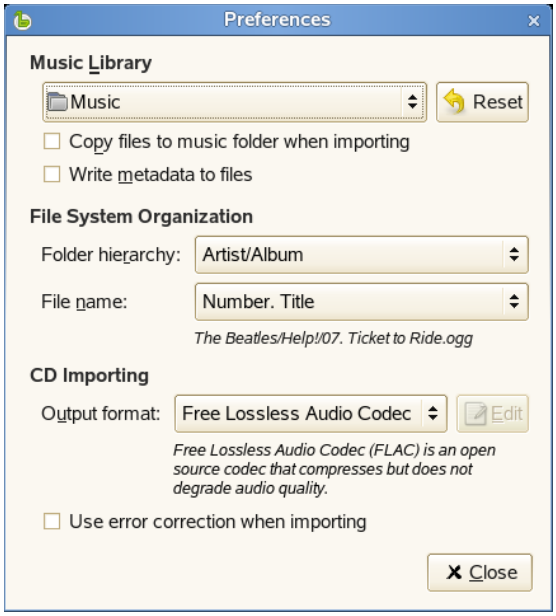
Helix Banshee starts reporting with the next song you play.

6 Click *Close*.

After Audioscrobbler is configured, use the options on the *Tools* > *Audioscrobbler* menu to enable or disable song reporting, visit your user profile Web page, or visit the Web site of any Audioscrobbler groups you belong to.

16.6 Configuring Helix Banshee Preferences

1 Click *Edit* > *Preferences*.



2 Choose from the following options:

Music Library: Lets you specify a music folder location. This location is used when you import music. Click *Copy files to music folder when importing* to place a copy of the files you import in your Helix Banshee music folder.

File System Organization: Lets you determine folder hierarchy in the music library and how filenames are displayed.

CD Importing: Lets you determine encoding profiles for CD ripping. Select the output format you want, then click *Edit* to configure advanced options for that format.

Use error correction when importing: Error correction. Tries to work around problem areas on a disk, such as surface scratches, but can substantially slow down the time it takes to import.

3 Click *Close* to save your changes.

Burning CDs and DVDs

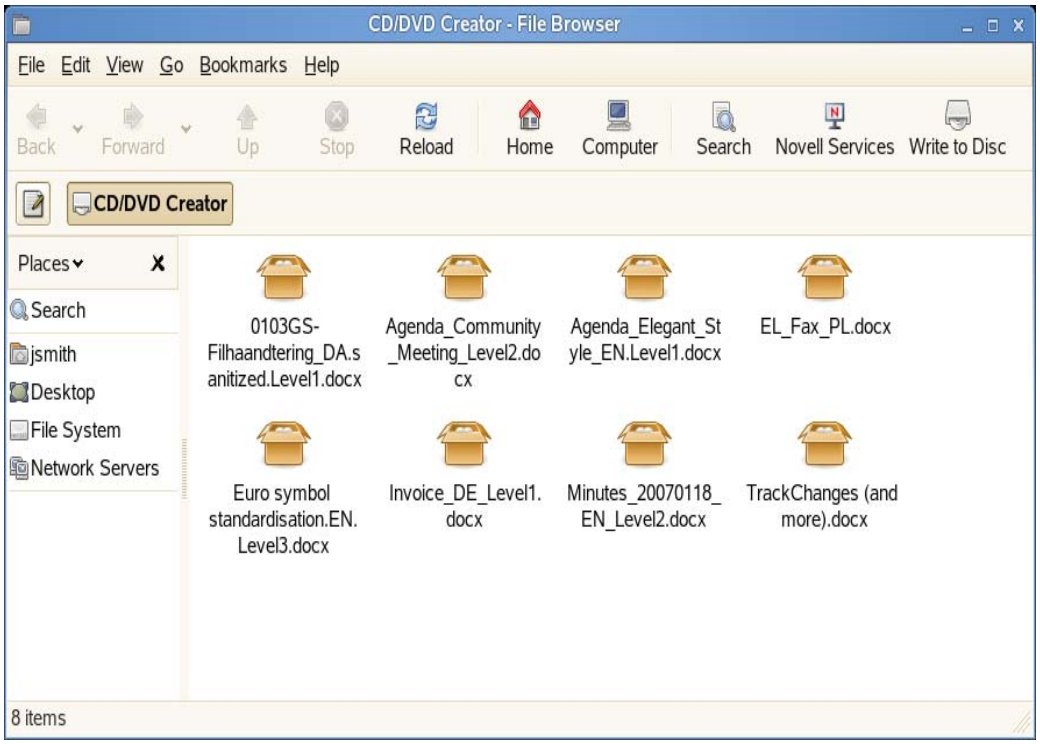
17

GNOME uses the Nautilus file manager to burn CDs and DVDs. To burn a CD or DVD:

1 Click *Computer* > *More Applications* > *Audio & Video* > *GNOME CD/DVD Creator*.

You can also insert a blank disc and click *Make Data CD* or *Make Audio CD*.

2 Copy the files you want to put on the CD or DVD into the *CD/DVD Creator* window.



3 Click *Write to Disc*.

4 Modify information in the Write to Disc dialog or accept the defaults, then click *Write*.

The files are burned on the disc. This could take a few minutes, depending on the amount of data being burned and the speed of your burner.

You can use the Helix Banshee music player to burn audio and MP3 CDs, as explained in Section 16.4, “Creating Audio and MP3 CDs,” on page 238.

Appendixes

V

Finding the Information You Need

A

To support you in your everyday work with SUSE® Linux* Enterprise Desktop and to help you explore your Linux system, Novell and the open source community at large have created a wealth of information. We have compiled relevant information and made it available to you in various formats. You can access detailed documentation provided with your product as well as additional information over the Internet.

A.1 Included Documentation

There are several places where you can find online documentation shipped with your product. The GNOME desktop includes a help center that offers a wide range of online documentation for SUSE Linux Enterprise Desktop. There, you can access SLED-specific information as well as application descriptions provided by the open source community.

When installing new software with YaST, the software documentation is installed automatically in most cases and usually appears in the help center of your desktop. However, some applications, such as The GIMP, may have different online help packages that can be installed separately with YaST and do not integrate into the help center.

A.2 Additional Resources and More Information

You can also access the specific manuals and documentation delivered with your product on the Internet at http://www.novell.com/documentation/sled10 (http://www.novell.com/documentation/sled10).

If you are searching for additional information, you can also refer to the following Internet sites:

- SUSE Support Database (http://en.opensuse.org/SDB:SDB)
- Novell Technical Support Knowledgebase (http://www.novell.com/support/)
- Product Support Community Resources (http://support.novell.com/forums/index.html)
- GNOME Documentation Web site (http://www.gnome.org/learn/)

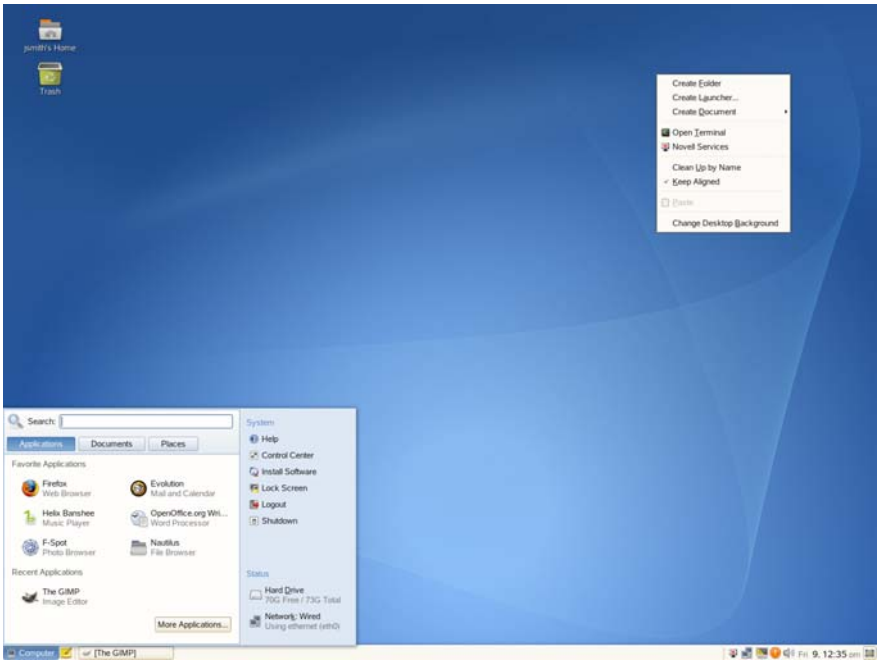
In addition, general-purpose search engines are often helpful. For example, you might try the search terms `Linux CD-RW help` or `OpenOffice file conversion problem` if you were having trouble with the CD burning or with OpenOffice.org file conversion. Google™ also has a specific Linux search engine (http://www.google.com/linux) that you might find useful.

Moving from Windows to Linux

B

If you are coming from Microsoft Windows, take a look at how familiar elements of Windows translate to SUSE® Linux* Enterprise Desktop. After logging in, you will notice that the desktop has a familiar layout and recognizable icons, many of them similar to the Windows and Macintosh desktops.

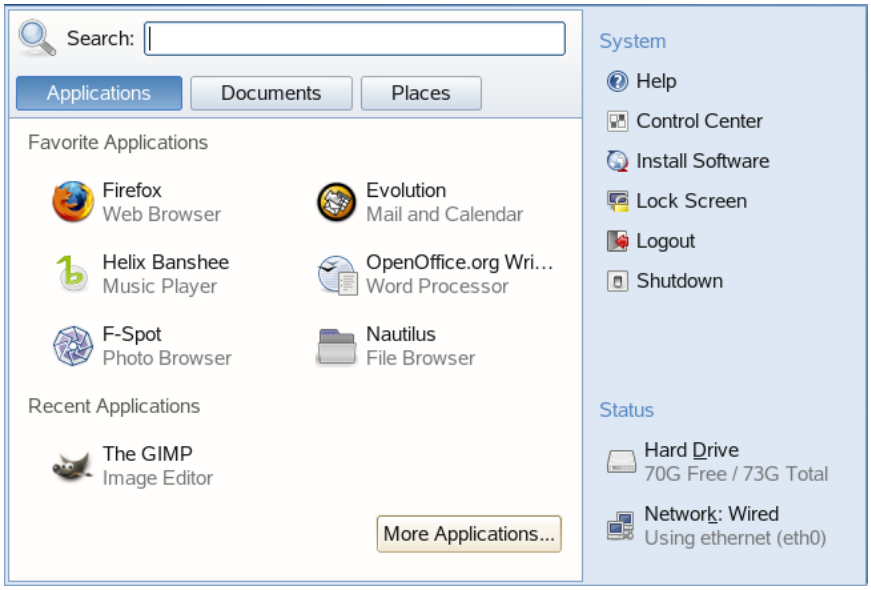
Figure B-1 *GNOME Desktop*



B.1 Starting Applications from the Main Menu

Similar to the Start menu on Windows, you can access all the programs installed on your system from the main menu. To open the menu click *Computer* in the left corner of the panel. The function-oriented menu structure makes it easy to find the right application for your purpose even if you do not know the application names yet. Find more information about the main menu in Section 1.4, “Using the Main Menu,” on page 23.

Figure B-2 *Main Menu in GNOME*

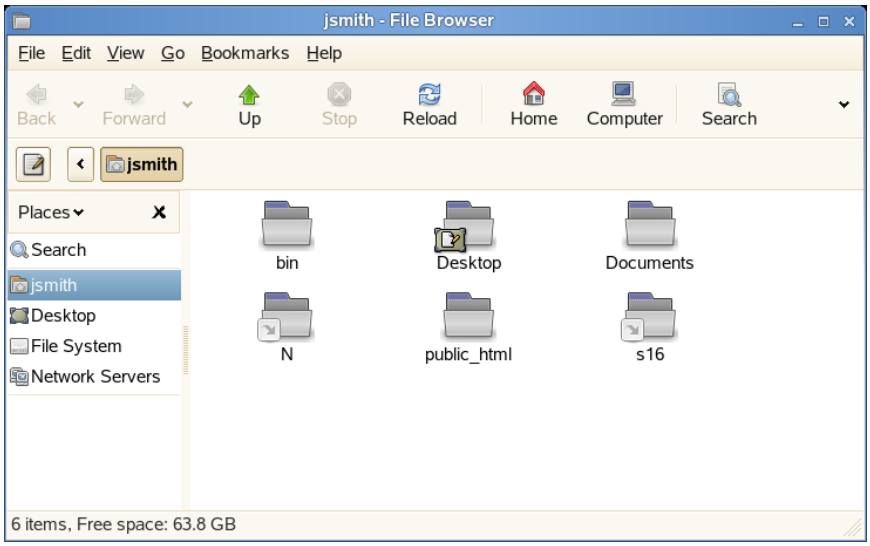


Alternatively, you can also start programs from the command line. Click *Computer* > *More Applications* > *System* > *Gnome Terminal* to open a dialog where you can enter a command to start the application. The name of the command is often (but not always) the application name written in lowercase.

B.2 Managing Files

To start the File Manager, click *Computer* > *Home Folder*. or click your home folder icon on the desktop.

Figure B-3 *File Manager*

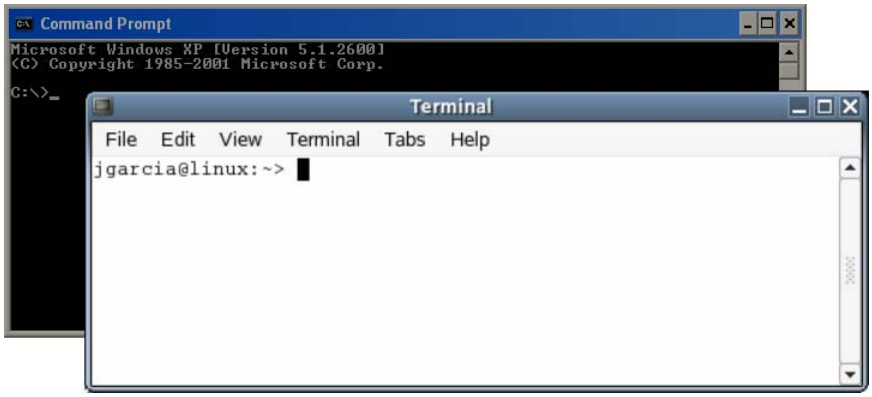


For more information about the File Manager, see Section 1.5, “Managing Folders and Files with Nautilus,” on page 26.

B.3 Using the Command Line

To run commands in a command line environment, similar to a command prompt on Windows, click *Computer* > *More Applications* > *System* > *Gnome Terminal*.

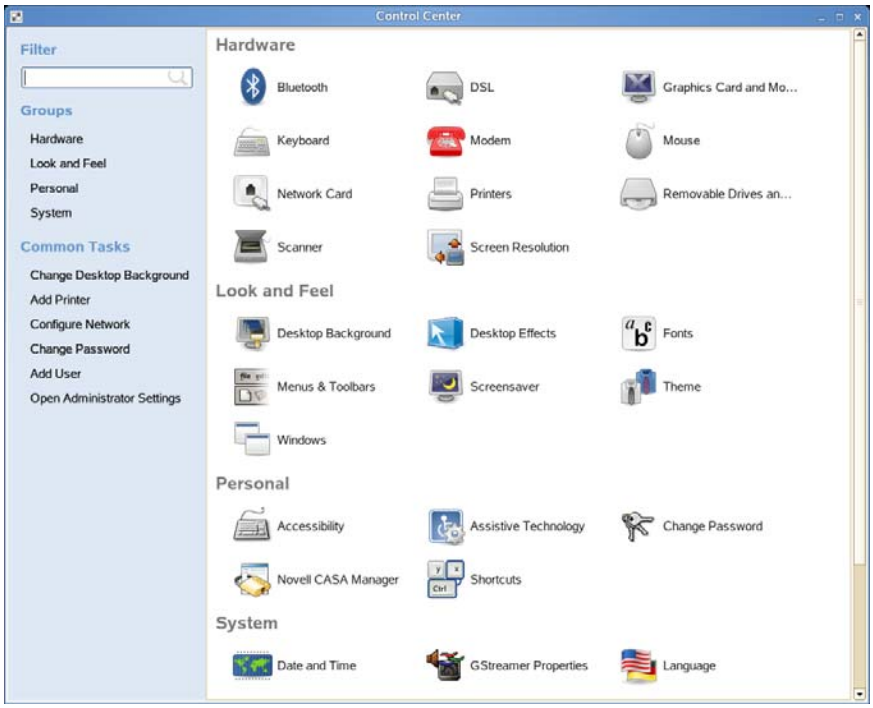
Figure B-4 *Windows Command Prompt and Terminal*



B.4 Customizing Your Desktop

To change to the way your GNOME desktops looks and behaves, click *Computer* > *Control Center*. Some of the settings you might want to change include the desktop background, screen saver, keyboard and mouse configuration, sounds, and file associations.

Figure B-5 *GNOME Control Center*



For more information, see Chapter 2, “Customizing Your Settings,” on page 55.

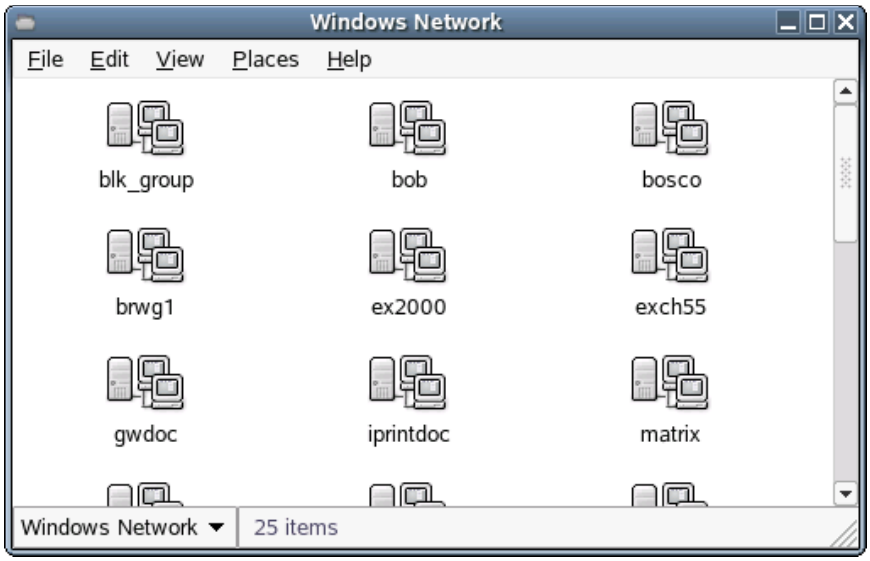
B.5 Switching between Applications

Similar to the taskbar on Windows, the bottom panel in GNOME lets you easily switch between open windows. Unlike Windows, GNOME lets you set up multiple desktops where each one can run different programs. Switch between them with a single click.

B.6 Accessing Network Resources

From your desktop, you can access files and directories or certain services on remote hosts or make your own files and directories available to other users in your network. SUSE Linux Enterprise Desktop offers various different ways of accessing and creating network-shared resources. Given that the network structure and the configuration of your computer allow for it, you can easily browse your network for shared resources and services with the file manager.

Figure B-6 *GNOME Network Browsing*



To learn more about the various possibilities of accessing network resources, refer to Section 1.6, “Accessing Network Resources,” on page 34.

Getting to Know Linux Software

C

Linux comes with a wealth of applications, often offering more than one solution to specific needs. The difficulty is finding the application that suits your needs best. The next few sections introduce some of the most powerful Linux counterparts of common Windows software. Each section is dedicated to one particular field of application and presents an overview of the Windows applications and Linux equivalents for several tasks. Below each table, find further information about the Linux applications with links to more information. This list is by no means complete, because software development is an evolutionary process and new applications are being created every minute.

TIP: Missing Applications

Not all applications mentioned below are installed on your system by default and some may not be shipped with your product. If the application you want to use is missing, ask your system administrator. If the application is provided by your product, you can install it with YaST. Use the search function of the YaST software management tool to find the package names.

C.1 Office

This section features the most popular and powerful Linux office and business software solutions. These include office suites, databases, accounting software, and project management software.

Table C-1 *Office Software for Windows and Linux*

Task	Windows Application	Linux Application
Office Suite	MS Office, StarOffice, OpenOffice.org	OpenOffice.org, StarOffice, KOffice
Word Processor	MS Word, StarOffice/OpenOffice.org Writer, WordPerfect	OpenOffice.org/StarOffice Writer, KWord
Spreadsheet	MS Excel, StarOffice/OpenOffice.org Calc	OpenOffice.org/StarOffice Calc, Gnumeric, KSpread
Presentation	MS PowerPoint, StarOffice/ OpenOffice.org Impress	OpenOffice.org/StarOffice Impress, KPresenter
Data Plotting	MS Excel, MicroCall Origin	OpenOffice.org Calc, Kst, Gnuplot, Grace (Xmgr), LabPlot
Local Database	MS Access, OpenOffice.org Base	OpenOffice.org Base, Rekall, kexi, Mergeant, PostgreSQL
Financial Accounting	MS Money, Quicken, moneyplex	GnuCash, moneyplex, KMyMoney
Project Management	MS Project	Planner, Taskjuggler
Mind Mapping	MindManager, Free Mind	VYM (View Your Mind), Free Mind, KDissert

FreeMind

FreeMind helps you to visualize your thoughts by creating and editing a mind map. You can easily copy nodes or the style of nodes and paste texts from sources such as HTML, RTF, and mails. The mind maps can be exported into various formats, such as HTML and XML. For more information, refer to http://freemind.sourceforge.net/wiki/index.php/Main_Page (http://freemind.sourceforge.net/wiki/index.php/Main_Page).

GnuCash

GnuCash is a software tool to control both your personal and business finances. Keep track of income and expenses and manage your bank accounts and stock portfolios all using one piece of software. Learn more about GnuCash at http://www.gnucash.org (http://www.gnucash.org).

Gnumeric

Gnumeric is a spreadsheet solution for the GNOME desktop environment. Find more information about Gnumeric at http://www.gnumeric.org (http://www.gnumeric.org).

Gnuplot

Gnuplot is a very powerful and portable command line–controlled data plotting software. It is also available for MacOS and Windows platforms. Plots created by Gnuplot can be exported to various formats, such as PostScript, PDF, and SVG, allowing you to process these plots easily. Find more information about Gnuplot at http://www.gnuplot.info/index.html (http://www.gnuplot.info/index.html).

Grace

Grace is a very mature 2D plotting tool for almost all flavors of Unix including Linux. Create and edit plots with a graphical user interface. Grace supports an unlimited number of graphs per plot. Its export formats include JPEG, PNG, SVG, PDF, PS, and EPS. Find more information at http://plasma-gate.weizmann.ac.il/Grace/ (http://plasma-gate.weizmann.ac.il/Grace/).

Kdissert

Kdissert is an application for structuring ideas and concepts, mostly aimed at students but also helpful for teachers, decision makers, engineers, and businessmen. Ideas are first laid down on a canvas then associated into a tree. You can generate various outputs from the mind map, such as PDF files, text documents (also for OpenOffice.org Writer), and HTML files. Find more information at http://freehackers.org/~tnagy/kdissert/ (http://freehackers.org/~tnagy/kdissert/).

Kexi

See “KOffice” on page 254.

KMyMoney

KMyMoney is a personal finance manager for KDE. It enables users of open source operating systems to keep track of their personal finances by providing a broad array of financial features and tools. Learn more about KMyMoney at http://kmymoney2.sourceforge.net (http://kmymoney2.sourceforge.net).

KOffice

KOffice is an integrated office suite for the KDE desktop. It comes with various modules like word processing (KWord), spreadsheets (KSpread), presentations (KPresenter), several image processing applications (Kivio, Karbon14, Krita), a database front-end (Kexi), and many more. Find more information about KOffice at http://www.koffice.org/ (http://www.koffice.org/).

KPresenter

See "KOffice" on page 254.

Kst

Kst is a KDE application for real-time data viewing and plotting with basic data analysis functionality. Kst contains many powerful built-in features, such as robust plotting of live streaming data, and is expandable with plug-ins and extensions. Find more about Kst at http://kst.kde.org/ (http://kst.kde.org/).

KWord

See "KOffice" on page 254.

LabPlot

LabPlot is a program for creating and managing two or three-dimensional data plots. Graphs can be produced both from data and functions and one plot might include multiple graphs. It also offers various data analysis methods. Find more information about LabPlot at http://labplot.sourceforge.net/ (http://labplot.sourceforge.net/).

Mergeant

Mergeant is a database front-end for the GNOME desktop. Find more information at http://www.gnome-db.org (http://www.gnome-db.org).

moneyplex

moneyplex is a tool to control your finances. All tasks from managing incoming resources and expenses and monitoring your stock portfolio to online transactions via the HBCI standard are handled by moneyplex. Keep track of your financial transactions over time using various analysis options. Because this tool is also available for Windows, users can migrate very easily without having to learn a whole new application interface. Find more information about moneyplex at http://www.matrica.de (http://www.matrica.de).

OpenOffice.org

OpenOffice.org is the open source equivalent of MS Office. It is a very powerful office suite including a word processor (Write), a spreadsheet (Calc), a database manager (Base), a presentation manager (Impress), a drawing program (Draw), and a formula editor for generating mathematical equations and formulas (Math). Users familiar with the MS Office family of applications find a very similar application interface and all the functionality to which they are accustomed. Because OpenOffice.org is capable of importing data from MS Office applications, the transition from one office suite to the other is very smooth. A Windows version of OpenOffice.org even exists, enabling Windows users to switch to an open source alternative while still using Windows. Find more information about OpenOffice.org at http://www.openoffice.org/ (http://www.openoffice.org/) and read Chapter 3, "The OpenOffice.org Office Suite," on page 105 for a short introduction to the office suite.

Planner

Planner is a project management tool for the GNOME desktop aiming to provide functionality similar to the project management tools used under Windows. Among its various features are Gantt charting abilities and different kinds of views of tasks and resources. Find more information about Planner at http://www.imendio.com/projects/planner/ (http://www.imendio.com/projects/planner/).

PostgreSQL

PostgreSQL is an object-relational database management system that supports an extended subset of the SQL standard, including transactions, foreign keys, subqueries, triggers, and user-defined types and functions. Find more information about PostgreSQL at http://www.postgresql.org/ (http://www.postgresql.org/).

Rekall

Rekall is a tool for manipulating databases. Supported databases include MySQL, PostgreSQL, XBase with XBSQL, IBM DB2, and ODBC. Use Rekall to generate different sorts of reports and forms, design database queries, or import and export data to various formats. Find more information about Rekall at http://www.thekompany.com/products/rekall/ (http://www.thekompany.com/products/rekall/).

StarOffice

StarOffice is a proprietary version of OpenOffice.org and is distributed by Sun Microsystems. It is available on multiple platforms including Windows and Solaris. It includes certain advanced features not available with the free version (OpenOffice.org). Find more information about StarOffice at http://www.sun.com/software/star/staroffice/ (http://www.sun.com/software/star/staroffice/).

Taskjuggler

Taskjuggler is a lean, but very powerful project management software. Take control of your projects using the Gantt charting features or by generating all kinds of reports (in XML, HTML, or CSV format). Those users who are not comfortable with controlling applications from the command line can use a graphical front-end to Taskjuggler. Find more information about Taskjuggler at http://www.taskjuggler.org (http://www.taskjuggler.org).

VYM (View Your Mind)

VYM is a software for visualizing your thoughts by creating and manipulating mind maps. Most manipulations do not require more than one mouse click. Branches can be inserted, deleted, and reordered very easily. VYM also offers a set of flags allowing you to mark certain parts of the map (important, time critical, etc.). Links, notes, and images can be added to a mind map as well. VYM mind maps use an XML format, allowing you to export your mind maps to HTML easily. Find more information about VYM at http://www.insilmaril.de/vym (http://www.insilmaril.de/vym).

C.2 Network

The following section features various Linux applications for networking purposes. Get to know the most popular Linux browsers and e-mail and chat clients.

Table C-2 *Network Software for Windows and Linux*

Task	Windows Application	Linux Application
Web Browser	Internet Explorer, Firefox, Opera	Konqueror, Firefox, Opera, Epiphany
E-Mail Client/Personal Information Management	MS Outlook, Lotus Notes, Mozilla Thunderbird	Evolution, Kontact, Mozilla Thunderbird

Task	Windows Application	Linux Application
Instant Messaging/IRC Clients	MSN, AIM, Yahoo Messenger, XChat, Gaim	Gaim, Kopete, Konversation, XChat
Conferencing (Video and Audio)	NetMeeting	GnomeMeeting/Ekiga
Voice over IP	X-Lite	Ekiga, Skype
FTP Clients	leechftp, wsftp	gftp, kbear

Epiphany

Epiphany is a lean, but powerful Web browser for the GNOME desktop. Many of its features and extensions resemble Firefox. Find more information about Epiphany at http://www.gnome.org/projects/epiphany/ (http://www.gnome.org/projects/epiphany/).

Evolution

Evolution is personal information management software for the GNOME desktop combining mail, calendar, and address book functionality. It offers advanced e-mail filter and search options, provides sync functionality for Palm devices, and allows you to run Evolution as an Exchange or GroupWise client to integrate better into heterogeneous environments. Find more information about Evolution at http://www.gnome.org/projects/evolution/ (http://www.gnome.org/projects/evolution/)

Firefox

Firefox is the youngest member of the Mozilla browser family. It runs on various platforms, including Linux, MacOS, and Windows. Its main features include built-in customizable searches, pop-up blocking, RSS news feeds, password management, tabbed browsing, and some advanced security and privacy options. Firefox is very flexible, allowing you to customize almost anything you want (searches, toolbars, skins, buttons, etc.). Neat add-ons and extensions can be downloaded from the Firefox Web site (https://addons.update.mozilla.org/?application=firefox). Find more information about Firefox at http://www.mozilla.org/products/firefox/ (http://www.mozilla.org/products/firefox/). You can also read our introduction to using Firefox in “Browsing with Firefox” on page 189.

Gaim

Gaim is a smart instant messenger program supporting multiple protocols, such as AIM and ICQ (Oscar protocol), MSN Messenger, Yahoo!, IRC, Jabber, SILC, and GroupWise Messenger. It is possible to log in to different accounts on different IM networks and chat on different channels simultaneously. Gaim also exists in a Windows version. Find more information about Gaim at http://gaim.sourceforge.net/about.php (http://gaim.sourceforge.net/about.php).

gftp

gftp is an FTP client using the GTK toolkit. Its features include simultaneous downloads, resume of interrupted file transfers, file transfer queues, download of entire directories, FTP proxy support, remote directory caching, passive and nonpassive file transfers, and drag and drop support. Find more information at http://gftp.seul.org (http://gftp.seul.org).

GnomeMeeting/Ekiga

GnomeMeeting (recently renamed Ekiga) is the open source equivalent of Microsoft's NetMeeting. It features LDAP and ILS support for address lookup and integrates with Evolution to share the address data stored there. GnomeMeeting/Ekiga supports PC-to-phone calls, allowing you to call another party with just your computer, sound card, and microphone without any additional hardware. Find more information about GnomeMeeting/Ekiga at http://www.ekiga.org (http://www.ekiga.org).

kbear

KBear is a KDE FTP client with the ability to have concurrent connections to multiple hosts, three separate view modes, support for multiple protocols (like FTP and SFTP), a site manager plug-in, firewall support, logging capabilities, and much more. Find more information at http://sourceforge.net/projects/kbear (http://sourceforge.net/projects/kbear).

Konqueror

Konqueror is a multitalented application created by the KDE developers. It acts as file manager and document viewer, but is also a very powerful and highly customizable Web browser. It supports the current Web standards, such as CSS(2), Java applets, JavaScript and Netscape plug-ins (Flash and RealVideo), DOM, and SSL. It offers neat helpers like an integrated search bar and supports tabbed browsing. Bookmarks can be imported from various other Web browsers, like Internet Explorer, Mozilla, and Opera. Find more information about Konqueror at http://www.konqueror.org/ (http://www.konqueror.org/). You can also read Managing Folders and Files with Konqueror in the *SUSE Linux Enterprise Desktop KDE User Guider*.

Kontact

Kontact is the KDE personal information management suite. It includes e-mail, calendar, address book, and Palm sync functionalities. Like Evolution, it can act as an Exchange or GroupWise client. Kontact combines several stand-alone KDE applications (KMail, KAddressbook, KOrganizer, and KPilot) to form an entity providing all the PIM functionality you need. Find more information about Kontact at http://www.kontact.org/ (http://www.kontact.org/).

Konversation

Konversation is an easy-to-use IRC client for KDE. Its features include support for SSL connections, strikeout, multichannel joins, away and unaway messages, ignore list functionality, Unicode, autoconnect to a server, optional time stamps in chat windows, and configurable background colors. Find more information about Konversation at http://konversation.kde.org (http://konversation.kde.org).

Kopete

Kopete is a very intuitive and easy-to-use instant messenger tool supporting protocols including IRC, ICQ, AIM, GroupWise Messenger, Yahoo, MSN, Gadu-Gadu, Lotus Sametime, SMS messages, and Jabber. Find more information about Kopete at http://kopete.kde.org/ (http://kopete.kde.org/).

Ekiga

Ekiga is a smart and lean Voice over IP client using the SIP protocol to establish calls. Find more information at http://www.gnomemeeting.org/ (http://www.gnomemeeting.org/). You can also read our Linphone chapter.

Mozilla Thunderbird

Thunderbird is an e-mail client application that comes as part of the Mozilla suite. It is also available for Microsoft Windows and MacOS, which facilitates the transition from one of these operating systems to Linux. Find more information about Mozilla Thunderbird at http://www.mozilla.org/products/thunderbird/ (http://www.mozilla.org/products/thunderbird/).

Opera

Opera is a powerful Web browser with neat add-ons like an optional e-mail client and a chat module. Opera offers pop-up blocking, RSS feeds, built-in and customizable searches, a password manager, and tabbed browsing. The main functionalities are easily reached through their respective panels. Because this tool is also available for Windows, it allows a much easier transition to Linux for those who have been using it under Windows. Find more information about Opera at http://www.opera.com/ (http://www.opera.com/).

Skype

Skype is an application for several platforms (Linux, Windows, MacOs X) that can be used for phone calls over the Internet with a good sound quality and with end-to-end encryption. When using Skype, configuring the firewall or router is not necessary. For more information, refer to http://www.skype.com/products/ (http://www.skype.com/products/).

XChat

XChat is an IRC client that runs on most Linux and UNIX platforms as well as under Windows and MacOS X. Find more information about XChat at http://www.xchat.org/ (http://www.xchat.org/).

C.3 Multimedia

The following section introduces the most popular multimedia applications for Linux. Get to know media players, sound editing solutions, and video editing tools.

Table C-3 *Multimedia Software for Windows and Linux*

Task	Windows Application	Linux Application
Audio CD Player	CD Player, Winamp, Windows Media Player	KsCD, Grip, Helix Banshee
CD Burner	Nero, Roxio Easy CD Creator	K3b
CD Ripper	WMPlayer	kaudiocreator, Sound Juicer, Helix Banshee
Audio Player	Winamp, Windows Media Player, iTunes	amaroK, XMMS, Rhythmbox, Helix Banshee
Video Player	Winamp, Windows Media Player	Kaffeine, MPlayer, Xine, XMMS, Totem, RealPlayer
Audio Editor	SoundForge, Cooledit, Audacity	Audacity
Sound Mixer	sndvol32	alsamixer, Kmix
Music Notation	Finale, SmartScore, Sibelius	LilyPond, MusE, Noteedit, Rosegarden

Task	Windows Application	Linux Application
Video Creator and Editor	Windows Movie Maker, Adobe Premiere, Media Studio Pro, MainActor	MainActor, Kino
TV Viewer	AVerTV, PowerVCR 3.0, CinePlayer DVR	xawtv (analog), motv (analog), xawtv4, tvtime, kdetv, zapping, Kaffeine

amaroK

The amaroK media player handles various audio formats and plays the streaming audio broadcasts of radio stations on the Internet. The program handles all file types supported by the sound server acting as a back-end—currently aRts or GStreamer. Find more information about amaroK at http://amarok.kde.org/ (http://amarok.kde.org/). You can also read our amaroK chapter.

Audacity

Audacity is a powerful, free sound editing tool. Record, edit, and play any Ogg Vorbis or WAV file. Mix tracks, apply effects to them, and export the results to WAV or Ogg Vorbis. Find more information about Audacity at http://audacity.sourceforge.net/ (http://audacity.sourceforge.net/).

Helix Banshee

Helix Banshee is a music management and playback application for the GNOME desktop. With Helix Banshee, import CDs, sync your music collection to an iPod, play music directly from an iPod, create playlists with songs from your library, and create audio and MP3 CDs from subsets of your library. For more information, see Chapter 16, “Playing and Managing Your Music with Helix Banshee,” on page 227.

Grip

Grip provides CD player functionalities for the GNOME desktop. It supports CDDB lookups for track and album data. Find more information at http://www.nostatic.org/grip/ (http://www.nostatic.org/grip/).

Kaffeine

Kaffeine is a versatile multimedia application supporting a wide range of audio and video formats including Ogg Vorbis, WMV, MOV, and AVI. Import and edit play lists of various types, create screen shots, and save media streams to your local hard disk. Find more information about Kaffeine at http://kaffeine.sourceforge.net/ (http://kaffeine.sourceforge.net/).

KAudiocreator

KAudioCreator is a lean CD ripper application. If configured accordingly, KAudioCreator also generates playlist files for your selection that can be used by players like amaroK, XMMS, or Helix Banshee. Read more about using KAudioCreator in the *KDE User Guide* (http://www.novell.com/documentation/sled10) or go to http://www.icefox.net/programs/?program=KAudioCreator (http://www.icefox.net/programs/?program=KAudioCreator).

kdetv

A TV viewer and recorder application for the KDE desktop supporting analog TV. Find more information about kdetv at http://kde-apps.org/content/show.php?content=11602 (http://kde-apps.org/content/show.php?content=11602).

KsCD

KsCD is a neat little CD player application for the KDE desktop. Its user interface very much resembles that of a normal hardware CD player, guaranteeing ease of use. KsCD supports CDDB, enabling you to get any track and album information from the Internet or your local file system. Find more information at http://docs.kde.org/en/3.3/kdemultimedia/kscd/ (http://docs.kde.org/en/3.3/kdemultimedia/kscd/).

K3b

K3b is a multitalented media creation tool. Create data, audio, or video CD and DVD projects by dragging and dropping. Find more information about K3b at http://www.k3b.org/ (http://www.k3b.org/). You can also refer to our K3b chapter.

LilyPond

LilyPond is a free music sheet editor. Because the input format is text-based, you can use any text editor to create note sheets. Users do not need to tackle any formatting or notation issues, like spacing, line-breaking, or polyphonic collisions. All these issues are automatically resolved by LilyPond. It supports many special notations like chord names and tablatures. The output can be exported to PNG, TeX, PDF, PostScript, and MIDI. Find more information about LilyPond at http://lilypond.org/web/ (http://lilypond.org/web/).

MainActor

MainActor is a fully fledged video authoring software. Because there is a Windows version of MainActor, transition from Windows is easy. Find more information about MainActor at http://www.mainactor.com/ (http://www.mainactor.com/).

MPlayer

MPlayer is a movie player that runs on several systems. Find more information about MPlayer at http://www.mplayerhq.hu/homepage/design7/info.html (http://www.mplayerhq.hu/homepage/design7/info.html).

MusE

MusE's goal is to be a complete multitrack virtual studio for Linux. Find more information about MusE at http://www.muse-sequencer.org/index.php (http://www.muse-sequencer.org/index.php).

Noteedit

Noteedit is a powerful score editor for Linux. Use it to create sheets of notes and to export and import scores to and from many formats, such as MIDI, MusicXML and LilyPond. Find more information about Noteedit at http://developer.berlios.de/projects/noteedit/ (http://developer.berlios.de/projects/noteedit/).

Rhythmbox

Rhythmbox is a powerful, multitalented media player for the GNOME desktop. It allows you to organize and browse your music collection using playlists and even supports Internet radio. Find more information about Rhythmbox at http://www.gnome.org/projects/rhythmbox/ (http://www.gnome.org/projects/rhythmbox/).

Rosegarden

Rosegarden is a free music composition and editing environment. It features an audio and MIDI sequencer and a score editor. Find more information about Rosegarden at http://rosegardenmusic.com/ (http://rosegardenmusic.com/).

Sound Juicer

Sound Juicer is a lean CD ripper application for the GNOME desktop. Find more information about Sound Juicer at http://www.burtonini.com/blog/computers/sound-juicer (http://www.burtonini.com/blog/computers/sound-juicer).

Totem

Totem is a movie player application for the GNOME desktop. It supports Shoutcast, m3u, asx, SMIL, and ra playlists, lets you use keyboard controls, and plays a wide range of audio and video formats. Find more information about Totem at http://www.gnome.org/projects/totem/ (http://www.gnome.org/projects/totem/).

tvtime

tvtime is a lean TV viewer application supporting analog TV. Find more information about tvtime, including a comprehensive usage guide, at http://tvtime.sourceforge.net/ (http://tvtime.sourceforge.net/).

xawtv and motv

xawtv is a TV viewer and recorder application supporting analog TV. motv is basically the same as xawtv, but with a slightly different user interface. Find more information about the xawtv project at http://linux.bytesex.org/xawtv/ (http://linux.bytesex.org/xawtv/).

xawtv4

xawtv4 is a successor of the xawtv application. It supports both analog and digital audio and video broadcasts. For more information, refer to http://linux.bytesex.org/xawtv/ (http://linux.bytesex.org/xawtv/).

Xine

Xine is a multimedia player that plays CDs, DVDs, and VCDs. It interprets many multimedia formats. For more information, refer to http://xinehq.de/ (http://xinehq.de/).

XMMS

XMMS is the traditional choice for multimedia playback. It is focused on music playback, offering support for CD playback and Ogg Vorbis files. Users of Winamp should find XMMS comfortable because of its similarity. Find more information about XMMS at http://www.xmms.org/ (http://www.xmms.org/).

zapping

A TV viewer and recorder application for the GNOME desktop supporting analog TV. Find more information about Zapping at http://zapping.sourceforge.net/cgi-bin/view/Main/WebHome (http://zapping.sourceforge.net/cgi-bin/view/Main/WebHome).

C.4 Graphics

The following section presents some of the Linux software solutions for graphics work. These include simple drawing applications as well as fully-fledged image editing tools and powerful rendering and animation programs.

Table C-4 *Graphics Software for Windows and Linux*

Task	Windows Application	Linux Application
Simple Graphic Editing	MS Paint	KolourPaint
Professional Graphic Editing	Adobe Photoshop, Paint Shop Pro, Corel PhotoPaint, The GIMP	The GIMP, Krita
Creating Vector Graphics	Adobe Illustrator, CorelDraw, OpenOffice.org Draw, Freehand	OpenOffice.org Draw, Inkscape, Dia
SVG Editing	WebDraw, Freehand, Adobe Illustrator	Inkscape, Dia, Kivio
Creating 3D Graphics	3D Studio MAX, Maya, POV-Ray, Blender	POV-Ray, Blender, KPovmodeler
Managing Digital Photographs	Software provided by the camera manufacturer	Digikam, f-spot
Scanning	Vuescan	Vuescan, The GIMP
Image Viewing	ACDSee	gwenview, gThumb, Eye of Gnome, f-spot

Blender

Blender is a powerful rendering and animation tool available on many platforms, including Windows, MacOS, and Linux. Find more information about Blender at http://www.blender3d.com/ (http://www.blender3d.com/).

Dia

Dia is a Linux application aiming to be the Linux equivalent of Visio. It supports many types of special diagrams, such as network or UML charts. Export formats include SVG, PNG, and EPS. To support your own custom diagram types, provide the new shapes in a special XML format. Find more information about Dia at http://www.gnome.org/projects/dia/ (http://www.gnome.org/projects/dia/).

Digikam

Digikam is a smart digital photo management tool for the KDE desktop. Importing and organizing your digital images is a matter of a few clicks. Create albums, add tags to spare you from copying images around different subdirectories, and eventually export your images to your own Web site. Find more information about Digikam at http://www.digikam.org/ (http://www.digikam.org/).

Eye of Gnome (eog)

Eye of Gnome is an image viewer application for the GNOME desktop. Find more information at http://www.gnome.org/gnome-office/eog.shtml (http://www.gnome.org/gnome-office/eog.shtml).

F-Spot

F-Spot is a flexible digital photograph management tool for the GNOME desktop. It lets you create and manage albums and supports various export options like HTML pages or burning of image archives to CD. You can also use it as an image viewer on the command line. Find more information about F-Spot at http://www.gnome.org/projects/f-spot/ (http://www.gnome.org/

projects/f-spot/). You can also see Chapter 15, “Managing Your Digital Image Collection,” on page 215.

gThumb

gThumb is an image viewer, browser, and organizer for the GNOME desktop. It supports the import of your digital images via gphoto2, allows you to carry out basic transformation and modifications, and lets you tag your images to create albums matching certain categories. Find more information about gThumb at http://gthumb.sourceforge.net/ (http://gthumb.sourceforge.net/).

Gwenview

Gwenview is a simple image viewer for KDE. It features a folder tree window and a file list window that provides easy navigation of your file hierarchy. Find more information at http://gwenview.sourceforge.net/home/ (http://gwenview.sourceforge.net/home/).

Inkscape

Inkscape is a free SVG editor. Users of Adobe Illustrator, Corel Draw, and Visio can find a similar range of features and a familiar user interface in Inkscape. Among its features, find SVG-to-PNG export, layering, transforms, gradients, and grouping of objects. Find more information about Inkscape at http://www.inkscape.org/ (http://www.inkscape.org/).

Kivio

Kivio is a flow-charting application that integrates into the KOffice suite. Former users of Visio find a familiar look and feel in Kivio. Find more information about Kivio at http://www.koffice.org/kivio/ (http://www.koffice.org/kivio/).

KolourPaint

KolourPaint is an easy-to-use paint program for the KDE desktop. You can use it for tasks such as painting or drawing diagrams and editing screen shots, photos, and icons. For more information, refer to http://kolourpaint.sourceforge.net/ (http://kolourpaint.sourceforge.net/).

KPovmodeler

KPovmodeler is a POV-Ray front-end that integrates with the KDE desktop. KPovmodeler saves users from needing a detailed knowledge of POV-Ray scripting by translating the POV-Ray language in an easy-to-understand tree view. Native POV-Ray scripts can be imported to KPovmodeler as well. Find more information at http://www.kpovmodeler.org (http://www.kpovmodeler.org).

Krita

Krita is KOffice's answer to Adobe Photoshop and The GIMP. It can be used for pixel-based image creation and editing. Its features include many of the advanced image editing capabilities you would normally expect with Adobe Photoshop or The GIMP. Find more information at http://www.koffice.org/krita (http://www.koffice.org/krita).

OpenOffice.org Draw

See “OpenOffice.org” on page 255.

POV-Ray

The Persistence of Vision Raytracer creates three-dimensional, photo-realistic images using a rendering technique called ray tracing. Because there is a Windows version of POV-Ray, it does

not take much for Windows users to switch to the Linux version of this application. Find more information about POV-Ray at http://www.povray.org/ (http://www.povray.org/).

The GIMP

The GIMP is the open source alternative to Adobe Photoshop. Its feature list rivals that of Photoshop, so it is well suited for professional image manipulation. There is even a Windows version of GIMP available. Find more information at http://www.gimp.org/ (http://www.gimp.org/). You can also see Chapter 14, "Manipulating Graphics with The GIMP," on page 203.

VueScan

VueScan is a scanning software available for several platforms. You can install it parallel to your vendor's scanner software. It supports the scanner's special hardware, like batch scanning, autofocus, infrared channels for dust and scratch suppression, and multiscan to reduce scanner noise in the dark areas of slides. It features simple and accurate color correction from color negatives. Find out more at http://www.hamrick.com/index.html (http://www.hamrick.com/index.html).

C.5 System and File Management

The following section provides an overview of Linux tools for system and file management. Get to know text and source code editors, backup solutions, and archiving tools.

Table C-5 *System and File Management Software for Windows and Linux*

Task	Windows Application	Linux Application
File Manager	Windows Explorer	Konqueror, Nautilus
Text Editor	NotePad, WordPad, (X)Emacs	kate, GEdit, (X)Emacs, vim
PDF Creator	Adobe Distiller	Scribus
PDF Viewer	Adobe Reader	Adobe Reader, Evince, KPDF, Xpdf
Text Recognition	Recognita, FineReader	GOCR
Command Line Pack Programs	zip, rar, arj, lha, etc.	zip, tar, gzip, bzip2, etc.
GUI Based Pack Programs	WinZip	Ark, File Roller
Hard Disk Partitioner	PowerQuest, Acronis, Partition Commander	YaST, GNU Parted
Backup Software	ntbackup, Veritas	KDar, taper, dump

Adobe Reader

Adobe Reader for Linux is the exact counterpart of the Windows and Mac versions of this application. The look and feel on Linux are the same as on other platforms. The other parts of the Adobe Acrobat suite have not been ported to Linux. Find more information at http://www.adobe.com/products/acrobat/readermain.html (http://www.adobe.com/products/acrobat/readermain.html).

Ark

Ark is a GUI-based pack program for the KDE desktop. It supports common formats, such as `zip`, `tar.gz`, `tar.bz2`, `lha`, and `rar`. You can view, select, pack, and unpack single files within an archive. Due to Ark's integration with Konqueror, you can also trigger actions (such as unpacking an archive) from the context menu in the file manager, similar to WinZip. For a short introduction to using Ark, see the KDE Desktop chapter in the *SUSE Linux Enterprise Desktop KDE User Guide*.

dump

The dump package contains both dump and restore. dump examines files in a file system, determines which ones need to be backed up, and copies those files to a specified disk, tape, or other storage medium. The restore command performs the inverse function of dump—it can restore a full backup of a file system. Find more information at http://dump.sourceforge.net/ (http://dump.sourceforge.net/).

Evince

Evince is a document viewer for PDF and PostScript formats for the GNOME desktop. Find more information at http://www.gnome.org/projects/evince/ (http://www.gnome.org/projects/evince/).

File Roller

File Roller is a GUI-based pack program for the GNOME desktop. It provides features similar to Ark's. For more information, refer to http://fileroller.sourceforge.net/home.html (http://fileroller.sourceforge.net/home.html).

GEdit

GEdit is the official text editor of the GNOME desktop. It provides features similar to Kate's. Find more information at http://www.gnome.org/projects/gedit/ (http://www.gnome.org/projects/gedit/).

GNU Parted

GNU Parted is a command line tool for creating, destroying, resizing, checking, and copying partitions and the file systems on them. If you need to create space for new operating systems, use this tool to reorganize disk usage and copy data between different hard disks. Find more information at http://www.gnu.org/software/parted/ (http://www.gnu.org/software/parted/).

GOCR

GOCR is an OCR (optical character recognition) tool. It converts scanned images of text into text files. Find more information at http://jocr.sourceforge.net/ (http://jocr.sourceforge.net/).

gzip, tar, bzip2

There are plenty of packaging programs for reducing disk usage. In general, they differ only in their pack algorithm. Linux can also handle the packaging formats used on Windows. `bzip2` is a bit more efficient than `gzip`, but needs more time, depending on the pack algorithm. Find more information about `gzip` and `tar` in our Shell chapter.

kate

Kate is part of the KDE suite. It has the ability to open several files at once either locally or remotely. With syntax highlighting, project file creation, and external scripts execution, it is a perfect tool for a programmer. Find more information at http://kate.kde.org/ (http://kate.kde.org/).

KDar

KDar stands for KDE disk archiver and is a hardware-independent backup solution. KDar uses catalogs (unlike tar), so it is possible to extract a single file without reading the whole archive and it is also possible to create incremental backups. KDar can split an archive into multiple slices and trigger the burning of a data CD or DVD for each slice. Find more information about KDar at http://kdar.sourceforge.net/ (http://kdar.sourceforge.net/).

Konqueror

Konqueror is the default file manager for the KDE desktop, which can also be used as a Web browser, document and image viewer, and CD ripper. For an introduction to using Konqueror as a file manager, see *KDE User Guide*. Find more information about this multifunctional application at http://www.konqueror.org/ (http://www.konqueror.org/).

KPDF

KPDF is a PDF viewing application for the KDE desktop. Its features include searching the PDF and full screen reading mode like in Adobe Reader. Find more information at http://kpdf.kde.org/ (http://kpdf.kde.org/).

Nautilus

Nautilus is the default file manager of the GNOME desktop. It can be used to create folders and documents, display and manage your files and folders, run scripts, write data to a CD, and open URI locations. For an introduction to using Nautilus as a file manager, see the *GNOME User Guide*. Find information about Nautilus on the Internet at http://www.gnome.org/projects/nautilus/ (http://www.gnome.org/projects/nautilus/).

taper

Taper is a backup and restore program that provides a friendly user interface to allow backup and restoration of files to and from a tape drive. Alternatively, files can be backed up to archive files. Recursively selected directories are supported. Find more information at http://taper.sourceforge.net/ (http://taper.sourceforge.net/).

vim

vim (vi improved) is a program similar to the text editor vi. Users may need time to adjust to vim, because it distinguishes between command mode and insert mode. The basic features are the same as in all text editors. vim offers some unique options, like macro recording, file format detection and conversion, and multiple buffers in a screen. Find more information at http://www.vim.org/ (http://www.vim.org/).

(X)Emacs

GNU Emacs and XEmacs are very professional editors. XEmacs is based on GNU Emacs. To quote the GNU Emacs Manual, “Emacs is the extensible, customizable, self-documenting real-time display editor.” Both offer nearly the same functionality with minor differences. Used by experienced developers, they are highly extensible through the Emacs Lisp language. They support many languages, like Russian, Greek, Japanese, Chinese, and Korean. Find more information at http://www.xemacs.org/ (http://www.xemacs.org/) and http://www.gnu.org/software/emacs/emacs.html (http://www.gnu.org/software/emacs/emacs.html).

Xpdf

Xpdf is lean PDF viewing suite for Linux and Unix platforms. It includes a viewer application and some export plug-ins for PostScript or text formats. Find more information at http://www.foolabs.com/xpdf/ (http://www.foolabs.com/xpdf/).

C.6 Software Development

This section introduces Linux IDEs, toolkits, development tools, and versioning systems for professional software development.

Table C-6 *Development Software for Windows and Linux*

Task	Windows Application	Linux Application
Integrated Development Environments	Borland C++, Delphi, Visual Studio, .NET	KDevelop, Eric, Eclipse, MonoDevelop, Anjuta
Toolkits	MFC, Qt, GTK+	Qt, GTK+
Compilers	VisualStudio	GCC
Debugging Tools	Visual Studio	GDB, valgrind
GUI Design	Visual Basic, Visual C++	Glade, Qt Designer
Versioning Systems	Clearcase, Perforce, SourceSafe	CVS, Subversion

Anjuta

Anjuta is an IDE for GNOME/GTK+ application development. It includes an editor with automated formatting, code completion, and highlighting. As well as GTK+, it supports Perl, Pascal, and Java development. A GDB-based debugger is also included. Find more information about Anjuta at http://anjuta.sourceforge.net (http://anjuta.sourceforge.net).

CVS

CVS, the Concurrent Versions System, is one of the most important version control systems for open source. It is a front-end to the Revision Control System (RCS) included in the standard Linux distributions. Find more information at the home page http://www.cvshome.org/ (http://www.cvshome.org/).

Eclipse

The Eclipse Platform is designed for building integrated development environments that can be extended with custom plug-ins. The base distribution also contains a full-featured Java development environment. Find more information at http://www.eclipse.org (http://www.eclipse.org).

Eric

Eric is an IDE optimized for Python and Python-Qt development. Find more information about Eric at http://www.die-offenbachs.de/detlev/eric3.html (http://www.die-offenbachs.de/detlev/eric3.html).

GCC

GCC is a compiler collection with front-ends for various programming languages. Check out a complete list of features and find extensive documentation at http://gcc.gnu.org (http://gcc.gnu.org).

GDB

GDB is a debugging tool for programs written in various programming languages. Find more information about GDB at http://www.gnu.org/software/gdb/gdb.html (http://www.gnu.org/software/gdb/gdb.html).

Glade

Glade is a user interface builder for GTK+ and GNOME development. As well as GTK+ support, it offers support for C, C++, C#, Perl, Python, Java, and others. Find more information about Glade at http://glade.gnome.org/ (http://glade.gnome.org/).

GTK+

GTK+ is a multiplatform toolkit for creating graphical user interfaces. It is used for all GNOME applications, The GIMP, and several others. GTK+ has been designed to support a range of languages, not only C/C++. Originally it was written for GIMP, hence the name "GIMP Toolkit." Find more information at http://www.gtk.org (http://www.gtk.org). Language bindings for GTK+ are summarized under http://www.gtk.org/bindings.html (http://www.gtk.org/bindings.html).

KDevelop

KDevelop allows you to write programs for different languages (C/C++, Python, Perl, etc.). It includes a documentation browser, a source code editor with syntax highlighting, a GUI for the compiler, and much more. Find more information at http://www.kdevelop.org (http://www.kdevelop.org).

MonoDevelop

The Mono Project is an open development initiative that is working to develop an open source Unix version of the .NET development platform. Its objective is to enable Unix developers to build and deploy cross-platform .NET applications. MonoDevelop complements the Mono development with an IDE. Find more information about MonoDevelop at http://www.monodevelop.com/ (http://www.monodevelop.com/).

Qt

Qt is a program library for developing applications with graphical user interfaces. It allows you to develop professional programs rapidly. The Qt library is available not only for Linux, but for a number of Unix flavors and even for Windows and Macintosh. Thus it is possible to write programs that can be easily ported to those platforms. Find more information at http://www.trolltech.com (http://www.trolltech.com). Language bindings for Qt development are summarized under http://developer.kde.org/language-bindings/ (http://developer.kde.org/language-bindings/).

Qt Designer

Qt Designer is a user interface and form builder for Qt and KDE development. It can be run as part of the KDevelop IDE or in stand-alone mode. QtDesigner can be run under Windows and even integrates into the Visual Studio development suite. Find more information about Qt Designer at http://www.trolltech.com/products/qt/designer.html (http://www.trolltech.com/products/qt/designer.html).

Subversion

Subversion does the same thing CVS does but has major enhancements, like moving, renaming, and attaching meta information to files and directories. The Subversion home page is http://subversion.tigris.org/ (http://subversion.tigris.org/).

Valgrind

Valgrind is a suite of programs for debugging and profiling x86 applications. Find more information about Valgrind at http://valgrind.org/info/ (http://valgrind.org/info/).

Using the Fingerprint Reader

D

With the ThinkFinger driver, SUSE® Linux* Enterprise Desktop supports the fingerprint reader by UPEK/SGS Thomson Microelectronics included with some IBM and Lenovo ThinkPads. The same fingerprint reader can also be found in other laptops and either as a stand-alone device or built into some USB keyboards. For more details, refer to http://thinkfinger.svn.sourceforge.net/viewvc/*checkout*/thinkfinger/README.in (http://thinkfinger.svn.sourceforge.net/viewvc/*checkout*/thinkfinger/README.in). After registering their fingerprint, users can log in to the system either by swiping a finger on the fingerprint reader or by typing in a password.

If the hardware check detects the fingerprint reader integrated with your laptop (or connected to your system), the packages `libthinkfinger` and `pam_thinkfinger` are automatically installed. Use the command line tool `tf-tool` to register or verify a fingerprint for various users. `root` permission is required for this. The PAM module `pam_thinkfinger` supports user authentication by fingerprint for the following applications and actions (although you might not be prompted to swipe your finger in all cases):

- Logging in to GDM or a login shell
- Unlocking your screen on the GNOME desktop
- Starting YaST and the YaST modules in the GNOME control center
- Starting an application with `root` permission: `sudo` or `gnomesu`
- Changing to a different user identity with `su` or `su - username`

D.1 Registering a Fingerprint

Currently, only one fingerprint per user can be registered.

1. Open a shell and log in as `root`.
2. Run `tf-tool --help` to view the available options.
3. To register a fingerprint for a certain user, enter
   `tf-tool --add-user login`

   `tf-tool` prompts the user to swipe a finger until three readable fingerprints have been gathered. The user's fingerprint data is then stored to `/etc/pam_thinkfinger/login.bir`.
4. If you want to use fingerprint authentication for starting YaST or the YaST modules in the GNOME control center, register a fingerprint for `root`, too.
5. To verify an existing fingerprint for a certain user, enter
   `tf-tool --verify-user login`
6. Let the user swipe a finger. `tf-tool` compares the fingerprint to the print stored for this user and provides a message if the fingerprints match.

As soon as the user's fingerprint has been successfully registered, the user can choose to authenticate with either fingerprint or password.

To remove a user's fingerprint, delete the appropriate fingerprint file for this user: `/etc/pam_thinkfinger/login.bir`.

With `tf-tool --acquire` you can do a test run with `tf-tool`. The fingerprint is stored as `/tmp/test.bir` and can be verified with `tf-tool --verify`.

D.2 For More Information

- Find the project home page at http://thinkfinger.sourceforge.net/ (http://thinkfinger.sourceforge.net/)
- For more technical details, refer to `/usr/share/doc/packages/libthinkfinger/README` in your installed system.
- There are also man pages available for `pam_thinkfinger` and `tf-tool`.

Support of Tablet PCs

E

SUSE® Linux* Enterprise Desktop comes with support for Tablet PCs with serial `Wacom` devices. Although the majority of installation is the same as on other systems, several packages must be added manually. Then configure the input device properly.

After you have installed the Tablet PC packages and configured your digitizer correctly, input with the pen, also called a stylus, can be used for the following actions and applications:

- Logging in to KDM or GDM
- Unlocking your screen on the KDE and GNOME desktops
- Actions that can also be triggered by other pointing devices (such as mouse or touch pad), for example, moving the cursor on the screen, starting applications, closing, resizing and moving windows, shifting window focus, dragging and dropping objects
- Using gesture recognition in applications of the X Window System
- Drawing with The GIMP
- Taking notes or sketching with applications like Jarnal or Xournal or editing larger amounts of text with Dasher

---

NOTE: Keyboard or Mouse Needed for Installation

During installation of SUSE Linux Enterprise Desktop, the pen cannot be used as an input device. If your Tablet PC does not feature a built-in keyboard or touch pad, connect an external keyboard or mouse to your Tablet PC for installation of your system.

E.1 Installing Tablet PC Packages

Because YaST does not automatically detect Tablet PCs, install additional packages during or after installation of your system. The `TabletPC` installation pattern contains the following packages:

- `jarnal`: a Java-based note taking application
- `xournal`: an application for note taking and sketching
- `xstroke`: a gesture recognition program for the X Window System
- `xvkbd`: a virtual keyboard for the X Window System
- `x11-input-wacom`: the X input module for Wacom tablets
- `x11-input-wacom-tools`: configuration, diagnostics, and libraries for `Wacom` tablets

You can manually install the packages from the command line, or you can select the pattern for installation in YaST:

1. Start the YaST package manager from the command line or open YaST and select *Software* > *Software Management*.
2. For *Filter*, select *Pattern* to view the available packages grouped in patterns.
3. In the *Additional Software* group, mark the *TabletPC* pattern for installation.
4. Click *Accept* to start the installation of the packages.

E.2 Configuring Your Wacom Device

After the Tablet PC packages have been installed, configure your tablet device. Currently, SUSE Linux Enterprise Desktop does not support configuration of Wacom devices with SaX2. Instead, it is necessary to edit a system configuration file. Only the system administrator can make the changes to the `/etc/X11/xorg.conf` file.

For an overview about `/etc/X11/xorg.conf` and an introduction to manual configuration of the X Window System, see Section 23.1: Manually Configuring the X Window System (http://www.novell.com/documentation/beta/sled10/sled_deployment_sp1/data/sec_x11_optimieren.html) in the *SUSE Linux Enterprise Desktop 10 Deployment Guide*.

WARNING: A Faulty X Configuration Can Damage Your Hardware

Before editing the `/etc/X11/xorg.conf` file, create a backup of the original file. Do not edit other sections of the file, because this can cause damage to your hardware.

For Wacom devices, add a couple of lines to `/etc/X11/xorg.conf` as shown in Example E.1 Configuration for Wacom Devices.

Example E.1 Configuration for Wacom Devices

1. Add the following `InputDevice` sections:

```
Section "InputDevice" ❶
    Driver       "wacom"
    Identifier   "Mouse[5]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Tablet"
    Option       "Mode" "Absolute"
    Option       "SendCoreEvents" "on"
    Option       "Type" "cursor"
EndSection

Section "InputDevice" ❷
    Driver       "wacom"
    Identifier   "Mouse[7]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Pen"
    Option       "Mode" "Absolute"
    Option       "Type" "stylus"
EndSection

Section "InputDevice" ❸
    Driver       "wacom"
    Identifier   "Mouse[9]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Eraser"
    Option       "Mode" "Absolute"
```

```
   Option       "Type" "eraser"
EndSection
```

❶ Configuration for the tablet cursor input device connected to `/dev/ttyS0`. If you use a `HP Compaq tc4200`, try `/dev/ttyS2` instead. The device is given the `"Mouse[5]"` identifier to avoid problems in upcoming SaX2 versions.

❷ Configuration for the tablet stylus input device.

❸ Configuration for the tablet eraser input device. This part of the pen can be used in some applications to erase input.

2. Add the following lines to the `ServerLayout` section:

```
InputDevice  "Mouse[5]" "SendCoreEvents"
InputDevice  "Mouse[7]" "SendCoreEvents"
InputDevice  "Mouse[9]" "SendCoreEvents"
```

With these changes, your `/etc/X11/xorg.conf` should resemble the following:

[...]

```
Section "InputDevice" ❶
    Driver       "mouse"
    Identifier   "Mouse[3]"
    Option       "Buttons" "5"
    Option       "Device" "/dev/input/mice"
    Option       "Name" "ImPS/2 Generic Wheel Mouse"
    Option       "Protocol" "explorerps/2"
    Option       "Vendor" "Sysp"
    Option       "ZAxisMapping" "4 5"
EndSection

Section "InputDevice" ❷
    Driver       "wacom"
    Identifier   "Mouse[5]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Tablet"
    Option       "Mode" "Absolute"
    Option       "SendCoreEvents" "on"
    Option       "Type" "cursor"
EndSection

Section "InputDevice" ❸
    Driver       "wacom"
    Identifier   "Mouse[7]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Pen"
    Option       "Mode" "Absolute"
    Option       "Type" "stylus"
EndSection
```

```
Section "InputDevice" ❹
    Driver       "wacom"
    Identifier   "Mouse[9]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Eraser"
    Option       "Mode" "Absolute"
    Option       "Type" "eraser"
EndSection

[...]

Section "ServerLayout"
    Identifier   "Layout[all]"
    InputDevice  "Keyboard[0]" "CoreKeyboard"
    InputDevice  "Mouse[1]" "CorePointer"
    InputDevice  "Mouse[3]" "SendCoreEvents"
    InputDevice  "Mouse[5]" "SendCoreEvents" ❺
    InputDevice  "Mouse[7]" "SendCoreEvents"
    InputDevice  "Mouse[9]" "SendCoreEvents"
    Option       "Clone" "off"
    Option       "Xinerama" "off"
    Screen       "Screen[0]"
EndSection
```

❶ Default mouse configuration.

❷ Newly added configuration for tablet cursor input device.

❸ Newly added configuration for the tablet stylus input device.

❹ Newly added configuration for the tablet eraser input device.

❺ The tablet input devices `"Mouse[5]"`, `"Mouse[7]"`, and `"Mouse[9]"` are added to the X server devices.

This example configuration should work on most Tablet PCs. For more information check the HOWTO on the Linux Wacom Web site (http://linuxwacom.sourceforge.net/index.php/howto/x11).

3. After finishing the X Window System configuration, restart your X server by logging out or leave the user interface and run `init 3 && init 5` in a virtual console.

E.3 Using Common Tablet PC Features

After your `Wacom` device has been configured, you can now make use of your pen as input device.

E.3.1 Using the Virtual Keyboard

To log in to the KDE or GNOME desktop or to unlock the screen, you can either enter your username and password as usual or via the virtual keyboard, xvkbd, displayed below the login field.

To configure the keyboard or to access the integrated help, click the *xvkbd* field at the left lower corner to open the xvkbd main menu.

Figure E-1 *xvkbd Virtual Keyboard*

xvkbd (v2.7)
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Backspace
Esc Tab Control Shift
Q W E R T Y U I O P Del
A S D F G H J K L Return
Z X C V B N M Com pose Shift
xvkbd Caps Lock Alt Meta Meta Alt Focus
Num Lock Focus
7 Home 8 Up 9 PgUp
4 Left 5 6 Right
1 End 2 Down 3 PgDn Enter
0 Ins . Del

If you want to use xvkbd after login, start it from the main menu or with `xvkbd` from a shell.

E.3.2 Rotating Your Display

When rotating your Tablet PC monitor, the orientation of your display and of your graphics tablet is not automatically adjusted. For the KDE desktop, use KRandRTray to rotate or resize your display manually on the fly. KRandRTray is a KDE applet for the RANDR extension of the X server.

1. Start KRandRTray from the main menu or with `krandrtray` from a shell. This adds the KRandRTray icon to your system tray.
2. To rotate your display, click the icon and select the desired orientation from the context menu. Your display is immediately tilted to the new direction. Also the orientation of the graphics tablet changes so it can still interpret the movement of the pen correctly.

For the GNOME desktop, a similar functionality can currently only be provided by a work-around. See “Troubleshooting” on page 279 for more information.

E.3.3 Using Gesture Recognition

With xstroke, you can use gestures with your pen or other pointing devices as input for applications on the X Window System. The xstroke alphabet is a unistroke alphabet that resembles the Graffiti* alphabet. When activated, xstroke sends the input to the currently focused window.

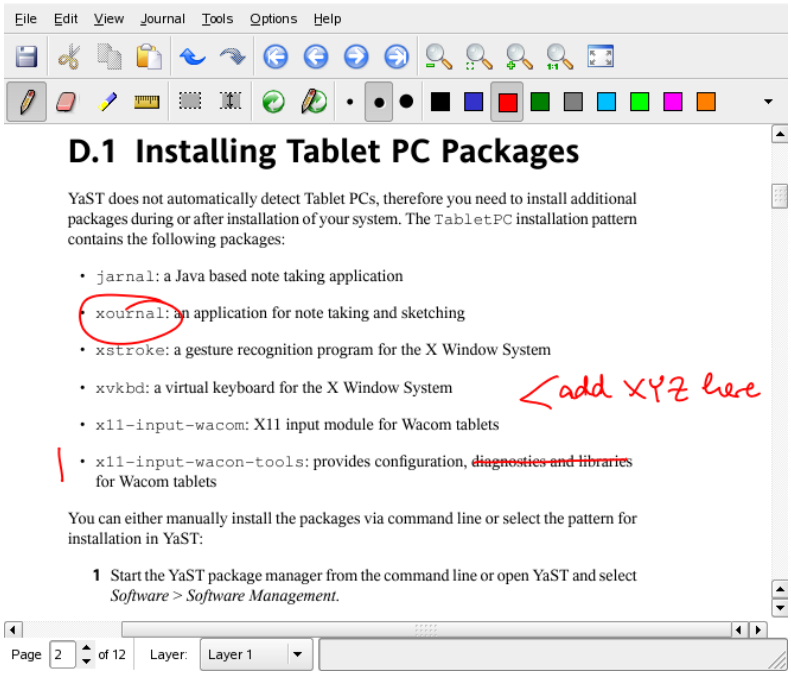
1. Start xstroke from the main menu or with `xstroke` from a shell. This adds a pencil icon to your system tray.
2. Start the application for which you want to create text input with the pen (for example, a terminal window, a text editor, or OpenOffice.org Writer).
3. To activate gesture recognition mode, click the pencil icon once.
4. Perform some gestures on the graphics tablet with the pen or another pointing device. xstroke captures the gestures and transfers them to text that appears in the application window that has the focus.
5. To switch focus to a different window, click the desired window with the pen and hold for a moment (or use the keyboard shortcut defined in your desktop's control center).
6. To deactivate the gesture recognition mode, click the pencil icon again.

E.3.4 Taking Notes and Sketching with the Pen

To create drawings with the pen, you can use a professional graphics editor like The GIMP or try one of the note taking applications, Xournal or Jarnal. With both Xournal and Jarnal, you can take notes, create drawings, or comment PDF files with the pen. As a Java-based application available for several platforms, Jarnal also offers basic collaboration features. For more information, refer to http://www.dklevine.com/general/software/tc1000/jarnal-net.htm (http://www.dklevine.com/general/software/tc1000/jarnal-net.htm). When saving your contents, Jarnal stores the data in an archive format (*.jaj) that also contains a file in SVG format.

Start Jarnal or Xournal from the main menu or by entering `jarnal` or `xournal` in a shell. To comment a PDF file in Xournal, for example, select *File* > *Annotate PDF* and open the PDF file from your file system. Use the pen or another pointing device to annotate the PDF then save your changes with *File* > *Print to PDF*.

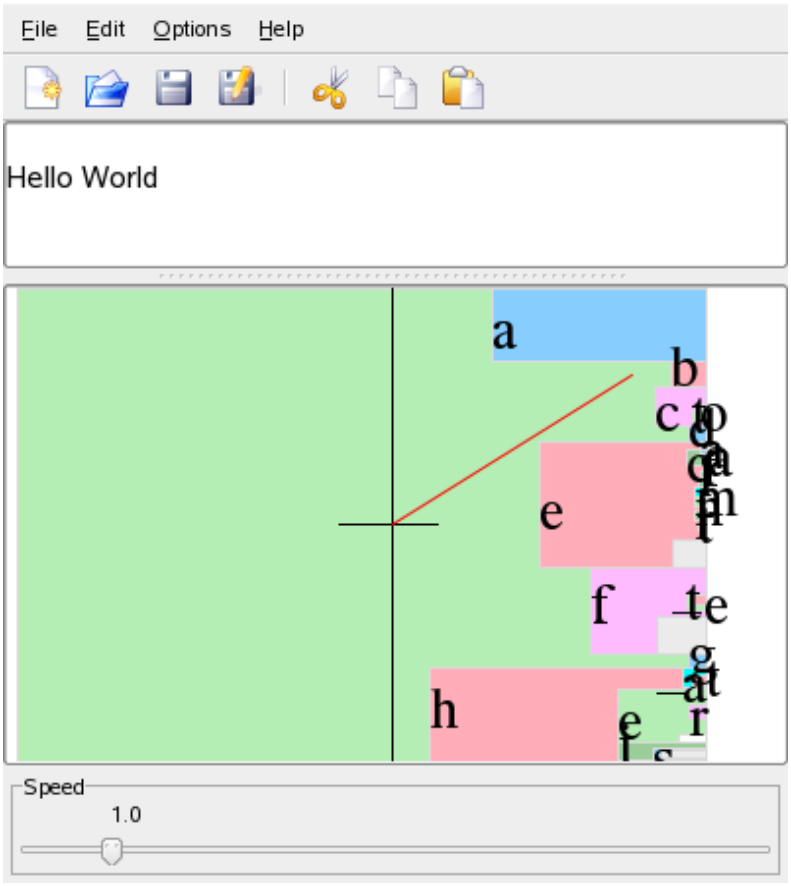
Figure E-2 *Annotating a PDF with Xournal*


File Edit View Journal Tools Options Help
D.1 Installing Tablet PC Packages
YaST does not automatically detect Tablet PCs, therefore you need to install additional packages during or after installation of your system. The TabletPC installation pattern contains the following packages:
jarnal: a Java based note taking application
xournal: an application for note taking and sketching
xstroke: a gesture recognition program for the X Window System
xvkbd: a virtual keyboard for the X Window System
add XYZ here
x11-input-wacom: X11 input module for Wacom tablets
x11-input-wacon-tools: provides configuration, diagnostics and libraries for Wacom tablets
You can either manually install the packages via command line or select the pattern for installation in YaST:
1 Start the YaST package manager from the command line or open YaST and select Software > Software Management.
Page 2 of 12
Layer: Layer 1

Dasher is another useful application. It was designed for situations where keyboard input is impractical or unavailable. With a bit of training, you can rapidly enter larger amounts of text using only the pen (or other input devices—it can even be driven with an eye tracker).

Start Dasher from the main menu or with `dasher` from a shell. Move your pen in one direction and the applications starts to zoom into the letters on the right side. From the letters passing the cross hairs in the middle, the text is created or predicted and is printed to the upper part of the window. To stop or start writing, click the display once with the pen. Modify the zooming speed at the bottom of the window.

Figure E-3 *Editing Texts with Dasher*



The Dasher concept works for many languages. For more information, refer to the Dasher Web site, which offers comprehensive documentation, demonstrations and training texts. Find it at http://www.inference.phy.cam.ac.uk/dasher/ (http://www.inference.phy.cam.ac.uk/dasher/)

E.4 Troubleshooting

Virtual Keyboard Does Not Appear on Login Screen

Occasionally, the virtual keyboard is not displayed on the login screen. To solve this, restart the X server by pressing Ctrl+Alt+Backspace or press the appropriate key on your Tablet PC (if you use a slate model without integrated keyboard). If the virtual keyboard still does not show, connect an external keyboard to your slate model and log in using the hardware keyboard.

Orientation of the Graphics Tablets Does Not Change in GNOME

With the `xrandr` command, you can change the orientation of your display from within a shell. Enter `xrandr --help` to view the options available. To simultaneously change the orientation of your graphics tablet, the command needs to be modified as described below:

- For normal orientation (0° rotation):
  `xrandr -o 0 && xsetwacom set "Mouse[7]" Rotate 0`
- For 90° rotation (clockwise, portrait):
  `xrandr -o 3 && xsetwacom set "Mouse[7]" Rotate 1`

- For 180° rotation (landscape):

  ```
  xrandr -o 2 && xsetwacom set "Mouse[7]" Rotate 3
  ```

- For 270° rotation (counterclockwise, portrait):

  ```
  xrandr -o 1 && xsetwacom set "Mouse[7]" Rotate 2
  ```

Note that the commands above depend on the contents of your `/etc/X11/xorg.conf` configuration file. If the example configuration presented in "Example E.1 Configuration for Wacom Devices" on page 274 has been used, the commands should work as they are written. If you have changed the `Identifier` of the tablet stylus input device in `xorg.conf`, replace `"Mouse[7]"` with the new `Identifier`.

E.5 For More Information

Some of the applications mentioned here do not offer integrated online help, but you can find some useful information about usage and configuration in your installed system in `/usr/share/doc/package/`*`packagename`* or on the Web:

- For the Xournal manual, refer to the Xournal User's Manual (http://xournal.sourceforge.net/manual.html).
- The Jarnal documentation is located at http://www.dklevine.com/general/software/tc1000/jarnal.htm#documentation (http://www.dklevine.com/general/software/tc1000/jarnal.htm#documentation).
- Find the xstroke man page at http://davesource.com/Projects/xstroke/xstroke.txt (http://davesource.com/Projects/xstroke/xstroke.txt).
- Find a HOWTO for configuring X on the Linux Wacom Web site: http://linuxwacom.sourceforge.net/index.php/howto/x11 (http://linuxwacom.sourceforge.net/index.php/howto/x11).
- Find a very informative Web site about the Dasher project at http://www.inference.phy.cam.ac.uk/dasher/ (http://www.inference.phy.cam.ac.uk/dasher/).